

EXHIBIT 5

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA

EPIC GAMES, INC.,
Plaintiff,

v.

APPLE INC.,
Defendant.

APPLE INC.,
Counterclaimant,

v.

EPIC GAMES, INC.,
Counter-Defendant.

Case No. 4:20-cv-05640-YGR

**RULE 52 ORDER AFTER TRIAL ON THE
MERITS**

Plaintiff Epic Games, Inc. sued Apple, Inc. alleging violations of federal and state antitrust laws and California's unfair competition law based upon Apple's operation of its App Store. Broadly speaking, Epic Games claimed that Apple is an antitrust monopolist over (i) Apple's *own system* of distributing apps on Apple's *own devices* in the App Store and (ii) Apple's *own system* of collecting payments and commissions of purchases made on Apple's *own devices* in the App Store. Said differently, plaintiff alleged an antitrust market of one, that is, Apple's "monopolistic" control over its own systems relative to the App Store. Apple obviously disputed the allegations.

Antitrust law protects competition and not competitors. Competition results in innovation and consumer satisfaction and is essential to the effective operation of a free market system. Antitrust jurisprudence also evaluates both market structure and behavior to determine whether an actor is using its place in the market to artificially restrain competition.

Central to antitrust cases is the appropriate determination of the "relevant market." Epic Games structured its lawsuit to argue that Apple does not compete with anyone; it is a monopoly of one. Apple, by contrast, argues that the effective area of competition is the market for all digital video games in which it and Epic Games compete heavily. In the digital video game market, Apple argues that it does not enjoy monopoly power, and therefore does not violate federal and state law.

The Court disagrees with both parties' definition of the relevant market.

Ultimately, after evaluating the trial evidence, the Court finds that the relevant market here is ***digital mobile gaming transactions***, not gaming generally and not Apple's own internal operating systems related to the App Store. The mobile gaming market itself is a *\$100 billion industry*. The size of this market explains Epic Games' motive in bringing this action. Having penetrated all other video game markets, the mobile gaming market was Epic Games' next target and it views Apple as an impediment.

Further, the evidence demonstrates that most App Store revenue is generated by mobile gaming apps, not all apps. Thus, defining the market to focus on gaming apps is appropriate. Generally speaking, on a *revenue basis*, gaming apps account for approximately 70% of all App Store revenues. This 70% of revenue is generated by less than 10% of all App Store consumers. These gaming-app consumers are primarily making in-app purchases which is the focus of Epic Games' claims. By contrast, over 80% of all consumer accounts generate virtually no revenue, as 80% of all apps on the App Store are free.

Having defined the relevant market as digital mobile gaming transactions, the Court next evaluated Apple's conduct in that market. Given the trial record, the Court cannot ultimately conclude that Apple is a monopolist under either federal or state antitrust laws. While the Court finds that Apple enjoys considerable market share of over 55% and extraordinarily high profit margins, these factors alone do not show antitrust conduct. Success is not illegal. The final trial record did not include evidence of other critical factors, such as barriers to entry and conduct decreasing output or decreasing innovation in the relevant market. The Court does not find that it is impossible; only that Epic Games failed in its burden to demonstrate Apple is an illegal monopolist.

Nonetheless, the trial did show that Apple is engaging in anticompetitive conduct under California's competition laws. The Court concludes that Apple's anti-steering provisions hide critical information from consumers and illegally stifle consumer choice. When coupled with Apple's incipient antitrust violations, these anti-steering provisions are anticompetitive and a nationwide remedy to eliminate those provisions is warranted.

The Court provides its findings of facts and conclusions of law below.¹

PART I

FINDINGS OF FACT

To determine the relevant market, the Court must first understand the industry and the markets in that industry. This is a heavily *factual* inquiry. Thus, in this Order, the Court explains in detail, the facts underpinning each parties' theory and other relevant facts uncovered during the trial. These details include the background of the parties, their products, the industry, and the markets in which they compete.² To assist the reader, given the length of this Order, an outline is included in an Appendix hereto.

I. THE PARTIES

A. Overview

Some basic background information may be helpful. Epic Games is a multi-billion dollar video game company. It defines the relevant market by way of Apple's own internal operating system. Apple has maintained control of its own operating system for mobile devices, called iOS, since its inception in 2007. Apple's creation and cultivation of the iOS device (and its ecosystem) has been described as a walled garden. Said differently, it is a closed platform whereby Apple controls and supervises access to any software which accesses the iOS devices (defined as iPhones and iPads; also referred to collectively as iOS devices). Apple justifies this control primarily in the name of consumer privacy, security, as well as monetization of its intellectual property. Evidence supports the argument that consumers value these attributes.

¹ The Court notes several pending administrative motions to seal relating to the parties' proposed findings of facts and conclusions of law, pending motions, and submitted and docketed materials. *See* Dkt. Nos. 517, 650, 656, 696, 702, 707, 777, 778, 810. These motions are **GRANTED** to the extent that they remain sealed and are not referenced in this Order. Otherwise, to the extent the information is referenced and included in this Order, the motions are **DENIED**. Previously sealed documents remain sealed unless otherwise noted in this Order.

² In considering these issues, the Court conducted a sixteen-day bench trial, admitted over 900 exhibits, and, to expedite the in-court proceedings, considered pre-trial submissions including written testimony of the experts and designations of deposition transcripts. The Court in this Order refers to the findings of facts ("FOF") and conclusions of law ("COL") for the parties' arguments as these documents effectively served as the parties' post-trial briefs. *See* Dkt. Nos. 777-4 (Epic Games' filing), 778-4 (Apple's filing).

Due in part to this business model, Apple has been enormously successful and its devices are now ubiquitous.

Both Apple and third-party developers like Epic Games have symbiotically benefited from the ever-increasing innovation and growth in the iOS ecosystem. There is no dispute in the record that developers like Epic Games have benefited from Apple's development and cultivation of the iOS ecosystem, including its devices and underlying software. Nor is there any dispute that developers like Epic Games have enhanced the experience for iOS devices and their consumers by offering a diverse assortment of applications beyond that which Apple can or has provided.

Until this lawsuit, Epic Games' flagship video game product, *Fortnite*, could be played on iOS devices. The product generated an immensely profitable revenue stream for Epic Games. However, Epic Games was also required by contract to pay Apple a 30% commission on every purchase made through the App Store, whether an initial download or an in-app purchase. Consequently, *Fortnite* generated a profitable revenue stream for Apple as well. Epic Games tried to use *Fortnite* as leverage to force Apple to reduce its commission fee and to open its closed platform. When Apple refused, Epic Games breached its contract, which it concedes, and filed this lawsuit. Apple countersued for breach of contract.

Plaintiff focuses its challenge on Apple's control over the distribution of apps to its users and the requirement that developers of apps use Apple's in-app purchases or in-app payments ("IAP") system³ if purchases are offered in the app. Under this IAP system and under its agreements with app developers, Apple collects payments made to developers, remits 70% to the developers, and keeps a 30% commission. This rate has largely remained unchanged since the inception. The trial also contained evidence of Apple's use of anti-steering provisions to limit information flow to consumers on the payment structure related to in-app purchases.

Once acceptable, Apple's commission rate is now questioned by some consumers and some developers, like Epic Games, as being overly burdensome and violative of competition laws. Indeed, two related lawsuits were already pending before the Court well before the commencement of this action. The first, *In Re Apple iPhone Antitrust Litigation*, 4:11-cv-6714-YGR (*Pepper*), was filed in 2011 on behalf of a class of iOS device consumers alleging harm from the commission rate. The second, filed in 2019 after *Pepper* returned from the Supreme Court of the United States, *Donald Cameron v. Apple Inc.*, 4:19-cv-3074-YGR (*Cameron*), on behalf of a class of iOS app developers also alleging violations of antitrust and competitions laws.

The Court begins the analysis with Epic Games.

³ The Court notes that it uses the term IAP in this Order to refer exclusively to Apple's IAP systems, as described and discussed later herein. *See supra* Facts § II.C. The Court clarifies, however, that certain witnesses use the term IAP to refer generically to any app purchases or payments made in games and apps. The Court notes that the underlying transcripts and cited materials in which IAP is being referenced clarifies which of the two is being discussed.

B. Plaintiff Epic Games

Epic Games is a video game developer founded in 1991 by Tim Sweeney.⁴ It is headquartered in Cary, North Carolina, has more than 3,200 employees in offices around the world, and was recently valued at \$28.7 billion. Mr. Sweeney serves as the controlling shareholder and chairman of the Board of Directors.⁵ Other notable shareholders include: (1) Tencent Holdings, Ltd., a Chinese video game company and one of the largest gaming companies in the world, which owns about thirty-seven percent of Epic Games, with two board seats; and (2) Sony Corporation, a major player in the console gaming market, which also owns about 1 to 2 percent of Epic Games.⁶

Epic Games first began publishing games for other developers when the company started.⁷ Around 1998, it moved away from publishing other companies' products to developing its own product.⁸ During the mid-2000's, the company, which had been focused on personal computers ("PC") games up to that point, shifted to developing for game consoles.⁹

In addition to game development, Epic Games offers software development tools and distributes apps.¹⁰ Epic Games now touts a number of different lines of business, much of which occurred during the pendency of this lawsuit and on the eve of trial, such as distribution of non-game apps.

The Court summarizes each of the three significant areas of its business: (1) gaming software development (*e.g.*, *Unreal Engine*, Epic Online Services); (2) game developer (*e.g.*, *Fortnite* and other video games); and (3) gaming distributor (*e.g.*, the Epic Games Store). The Court thereafter summarizes the prior relationship between Epic Games and Apple.

⁴ Trial Tr. (Sweeney) 89:19, 112:18–25.

⁵ *Id.* 112:18–113:14, 165:17–166:1, 179:7–8.

⁶ *Id.* 178:24–179:6, 179:21–180:3.

⁷ *Id.* 172:6–8.

⁸ *Id.* 172:21–173:3.

⁹ DX-3710.005–.006.

¹⁰ Trial Tr. (Sweeney) 93:22–94:17 (“Epic is in a variety of businesses all tied to the common theme of building and supporting real-time 3D content, both through consumer products and to developers, and . . . other services that socially connect users together.”), 166:6–12.

1. Gaming Software Developer: Unreal Engine and Epic Online Services

As a gaming software developer, Epic Games licenses two notable products to other developers: *Unreal Engine* and Epic Online Services.¹¹

The first, *Unreal Engine*, is a software suite that allows developers to create three-dimensional and immersive digital content.¹² It is not used by *consumers* and is not an app on the App Store.¹³ Developers wishing to use *Unreal Engine* must be licensed by nonparty Epic S.A.R.L. (“Epic International”), an Epic Games Swiss subsidiary.¹⁴ Epic International licenses *Unreal Engine* because it sought to protect their intellectual property rights.¹⁵ Licensed developers are governed by the End User License Agreement.¹⁶

Epic Games profits from *Unreal Engine* by charging fees for paid content.¹⁷ Separately, Epic International charges a royalty on products that use any version of the *Unreal Engine* (typically 5% of gross revenue).¹⁸ In the past, developers were required to pay royalties after a product exceeded \$3,000 in revenue per quarter. After a change in policy in 2020, Epic International is now owed royalties after a product earns \$1,000,000 through the product’s life.¹⁹

Epic International therefore profits in perpetuity from any success a developer enjoys using the *Unreal Engine*.²⁰ As Epic Games’ former chief financial officer stated, this model

¹¹ *Id.* 94:5–7; Trial Tr. (Grant) 662:8–13.

¹² *Id.* 116:17–22 (“The *Unreal Engine* is a development tool aimed at content creators rather than consumers. It contains content creation tools, real-time 3D graphics, capabilities, and real-time physics and simulation technology that is used by a wide variety of industries to make a variety of 3D content.”).

¹³ *Id.* 162:19–163:14.

¹⁴ *Id.* 162:5–12; Trial Tr. (Grant) 724:11–16.

¹⁵ Trial Tr. (Grant) 754:13–19.

¹⁶ DX-4022; Trial Tr. (Grant) 667:3–11, 753:19–754:7.

¹⁷ DX-4022.006–.007 (§ 4).

¹⁸ DX-4022.007–.008 (§ 5).

¹⁹ Trial Tr. (Grant) 681:4–7, 754:20–755:4.

²⁰ DX-4022.008 (“The royalty will be payable under this Agreement with respect to each Product for as long as any Engine Code or Content (including as modified by you under the License) incorporated in or used to make the Product are protected under copyright or other intellectual property law.”); Ex. Depo. (Penwarden) 30:7–8.

ensures that if developers succeed, Epic Games “can participate in that success.”²¹ For instance, in 2019, *Unreal Engine* generated about \$97 million in revenue for Epic International,²² which enjoys a 100 percent gross margin on its “engine business.”²³

Although *Unreal Engine* itself is not available on the App Store, Epic Games develops apps that work in conjunction with *Unreal Engine*, including *Unreal Remote* and *Live Link Face*, and distributes on iOS. These apps “provide[] a means for people who work in the movie or TV industry to capture performances and view them on *Unreal Engine*.”²⁴ They do not include competitive game play.²⁵ Separate and apart from the App Store, Epic Games also provides *Unreal Marketplace*, a store for pre-created two-dimensional and three-dimensional assets for purchase by *Unreal* developers.²⁶

Second, in addition to *Unreal Engine*, Epic Games offers third-party developers a suite of back-end online gaming services through Epic Online Services. These services include matchmaking, Epic Games’ friends system, and voice system.²⁷

2. Game Developer: Fortnite

With respect to Epic Games’ primary business of development and release of its own video games including its flagship video game, *Fortnite*, Epic Games develops and owns through its subsidiary, other apps, such as *Houseparty*, which incorporates some optional gaming elements into its video chat application.²⁸

²¹ Ex. Depo. (Babcock) 180:5–9.

²² DX-3795.009.

²³ DX-3359.003.

²⁴ Trial Tr. (Grant) 664:21–665:17.

²⁵ Trial Tr. (Sweeney) 304:25–305:2 (noting there is no competitive game play associated with *Unreal Engine*).

²⁶ Trial Tr. (Ko) 799:18–21.

²⁷ Trial Tr. (Sweeney) 120:7–14 (“Epic Online Services . . . provides many of the social features that we built for *Fortnite* and makes them available to other companies, such as Epic’s account system, Epic’s matchmaking system, to put players together into a shared game session. It includes Epic’s friends system. And we’re soon to release the Epic Games voice system for voice chat.”).

²⁸ *Id.* 161:10–112 (“[W]e make *Houseparty*, which is a social video application, sort of like a version of Zoom that’s for friends.”), 117:8–12, 305:14–21. The record does not contain any information, financial or otherwise, with respect to these other games.

a. Fortnite's Game Modes

Fortnite is Epic Games' most popular game and app, with over 400 hundred million registered players worldwide.²⁹ Originally a cooperative shooter game consisting of player-versus-environment ("PVE") mechanics, *Fortnite* now has four main game modes: (i) *Save the World*, (ii) *Battle Royale*, (iii) *Creative*, and (iv) *Party Royale*.³⁰ Of these four game modes, "nearly half of the players coming into [*Fortnite*] on a daily basis," around 15 million users, "are playing Creative and Party Royale Modes."³¹

Save the World launched in July 2017 as the original game mode. It is a cooperative campaign consisting of PVE mechanics. Squads of up to four players team up to build forts and fight non-playable, computer monsters.³² *Save the World* is *not available* on mobile platforms, including the iOS platform, or on the Nintendo Switch.³³

Battle Royale is a player-versus-player ("PVP") elimination and survival match involving up to 100 players.³⁴ It is the most popular *Fortnite* game play mode with storylines and game play that evolve over time, as new chapters and seasons are released.³⁵ A season typically lasts around ten weeks and is a subset of a larger chapter.³⁶ This mode also offers a "sit out" feature, permitting players to observe *Battle Royale* matches instead of competing.³⁷ Importantly, and as discussed below, although the *Battle Royale* game play mode is available to download and play free of charge,³⁸ players can make in-app purchases for digital content, including digital avatars, costumes, dance moves, and other cosmetic items.³⁹

²⁹ Trial Tr. (Sweeney) 99:5–6, 100:5–7. Epic Games also owns and/or develops other games, including *Rocket League*, *Fall Guys*, *Battle Breakers*, *Spyjinx*, and the *Infinity Blade* series. Trial Tr. (Sweeney) 89:22–90:5, 116:8–12; Trial Tr. (Grant) 664:13–14.

³⁰ DX-5536; Trial Tr. (Sweeney) 99:5–10, 328:4–8; Trial Tr. (Weissinger) 1354:23–24.

³¹ Trial Tr. (Weissinger) 1296:5–8.

³² DX-5536.004.

³³ Trial Tr. (Weissinger) 1354:18, 1354:21.

³⁴ DX-5536.001–002.

³⁵ Trial Tr. (Sweeney) 99:5–10, 105:21.

³⁶ Trial Tr. (Weissinger) 1393:14–19.

³⁷ *Id.* 1296:14–1297:5.

³⁸ Trial Tr. (Sweeney) 108:15–16.

³⁹ *Id.* 108:23–109:3.

Creative mode allows players to create their own content in *Fortnite*.⁴⁰ According to Epic Games’ website: “Included free with Battle Royale, *Fortnite Creative* puts you in charge of your own Island *Creative* is also a great place for just creating your own scenery. . . .”⁴¹ Content generated in *Creative* mode can be more broadly shared by other *Fortnite* players.⁴² With the aid of avatar Agent Peely, an anthropomorphic banana man,⁴³ and Mr. Weissinger’s testimony, the Court was walked through different gaming and experiences islands within the *Creative* mode hub, including “Prison Breakout,” “Rockets vs. Cars,” “Cars Now With Snipers,” and “Creative Mayhem Regional Qualifier.”⁴⁴

The final mode, *Party Royale*, is described as “an experimental and evolving space that focuses on no sweat, all chill fun. Attractions include aerial obstacle courses, boat races, movies, and even live concerts from top artists[.]”⁴⁵

In 2017, *Fortnite* debuted on a number of platforms—including Windows, Mac, Xbox One, and PlayStation 4—with only the *Save the World* game mode. Later that year, Epic Games released *Battle Royale*—a free-to-play game mode with features available for in-app purchase. With *Battle Royale*’s success, *Fortnite* quickly “became more about Battle Royale” and, thus, a primarily “free-to-play game.” The success of *Fortnite* has been profitable for both Epic Games and its partners. For instance, the Epic Games-Microsoft partnership generates hundreds of millions of dollars for both parties.⁴⁶

b. Key Features of *Fortnite*

Fortnite has many distinct features. First, most of its game play is multiplayer and requires an Internet connection. Users can play *Fortnite* online with friends and family, with

⁴⁰ *Id.* 328:4–8.

⁴¹ DX-5536.003.

⁴² DX-5539.

⁴³ With respect to the appropriateness of Peely’s “dress,” the Court understood Apple merely to be “dressing” Peely in a tuxedo for federal court, as jest to reflect the general solemnity of a federal court proceeding. As Mr. Weissinger later remarked, and with which the Court agrees, Peely is “just a banana man,” additional attire was not necessary but informative. Trial Tr. (Weissinger) 1443:17.

⁴⁴ Matthew Weissinger is Vice President of Marketing at Epic Games. Trial Tr. (Weissinger) 1365:16–1366:1, 1367:25–1368:10, 1368:12–1371:20, 1373:22–1374:12, 1374:13–1376:6 (testimony agreeing that *Creative* mode includes game play and game mechanics).

⁴⁵ DX-5536.002; *see also* Trial Tr. (Allison) 1246:20–1247:7. The Court viewed a portion of this mode whereby Peely participated in a game called “Skydive Glide Drop,” before engaging in dance to celebrate a B rank finish. Trial Tr. (Weissinger) 1363:13–1364:12.

⁴⁶ Trial Tr. (Wright) 590:5–9, 592:12–17.

teams, or with other gamers of similar skill levels with whom they are matched.⁴⁷ Second, in order to play together online, users must have the same “version” of *Fortnite* software installed on their device or platform.⁴⁸ Third, *Fortnite* releases new content and updates, including major changes to the map and game play, on a regular basis. These updates ensure that users can enjoy new and surprising in-game experiences each time they open the app. Having a purely static environment without these updates would materially degrade the player experience.⁴⁹

Fourth, *Fortnite* features cross-play, allowing players on different platforms to play with one another.⁵⁰ Since September 2018, cross-platform play for *Fortnite* has been available on Sony’s PlayStation, Microsoft’s Xbox, the Nintendo Switch, Windows PCs, Mac computers, certain Android devices, and (until recently) certain iOS mobile devices.⁵¹ In fact, Epic Games pioneered cross-platform play for the gaming industry. It persuaded both Sony and Microsoft to erase the artificial barriers between players on their console platforms, making *Fortnite* the first game to achieve full cross-play functionality across those devices, as well as PCs and mobile devices.⁵² Epic Games believed so strongly in cross-platform play that it threatened litigation against Sony for using policies and practices to restrict the same.⁵³

Other cross-platform innovations featured on *Fortnite* include cross-progression and cross-purchase or cross-wallet. Cross-progression allows users to access the same account and maintain their progress, regardless of the platform on which they play. Thus, for users who play *Fortnite* on multiple platforms, cross-progression is an important feature.⁵⁴ Nevertheless, most *Fortnite* users play on a single platform.⁵⁵ Cross-purchases allows *Fortnite* users to buy V-

⁴⁷ Trial Tr. (Sweeney) 107:12–18.

⁴⁸ *Id.* 158:17–19.

⁴⁹ *Id.* 105:21–106:14.

⁵⁰ *Id.* 106:18–24, 196:8–22. Cross-platform scenarios also occur when games on one platform access “content, subscriptions, or features” acquired on other platforms or on a developer’s website. PX-2790.011 (§ 313(b)).

⁵¹ Trial Tr. (Sweeney) 107:2–10, 237:15–18.

⁵² *Id.* 106:23–107:10, 196:18–22, 198:22–199:6.

⁵³ DX-3125.007; Trial Tr. (Sweeney) 107:2–10, 234:3–238:12, 252:22–255:16.

⁵⁴ Trial Tr. (Sweeney) 108:3–11 (“Cross-progression refers to . . . a user who owns multi devices to connect with *Fortnite* on . . . different platforms, and to have the same . . . state [of] ownership of virtual items on all different platforms . . .”).

⁵⁵ PX-1054.

Bucks, or virtual currency, on one platform and spend them on another platform. Cross-purchases are not available on Sony or Nintendo platforms.⁵⁶

Fifth and finally, as evidenced above, *Fortnite* features gaming and non-gaming experiences.⁵⁷ For instance, *Party Royale* allows players to watch movies or TV shows, attend concerts, and participate in global cultural events within the app itself.⁵⁸ *Fortnite*'s capacity to bring people together has been particularly important during the COVID-19 pandemic.⁵⁹ Notable events include:

- Travis Scott's in-game concert in April 2020, viewed by 12.3 million concurrent users, including two million iOS users;⁶⁰
- Three of Christopher Nolan's feature-length films—*The Dark Knight*, *Inception*, and *The Prestige*—virtually screened in June 2020;⁶¹
- Exclusive episodes of ESPN's *The Ocho*, viewed by more than two million users, and the Discovery Channel's *Tiger Shark King*, viewed by more than 900,000 users;⁶²
- *We the People*, a series of discussions on racial equality and voter suppression in the United States, viewed by 1.5 million users;⁶³ and
- DJ Kaskadee hosted a virtual concert in March 2021.⁶⁴

Based on these in-game experiences, Epic Games considers *Fortnite* to compete not only with gaming companies but also with other social media companies such as Facebook and Netflix.⁶⁵

⁵⁶ Trial Tr. (Sweeney) 197:1–5, 198:1–3, 239:3–14.

⁵⁷ *Id.* 98:6–8.

⁵⁸ *Id.* 98:12–99:3.

⁵⁹ *Id.* 107:14–18; Trial Tr. (Weissinger) 1295:8–16.

⁶⁰ Trial Tr. (Weissinger) 1294:10–22.

⁶¹ Trial Tr. (Sweeney) 103:12–16; Trial Tr. (Weissinger) 1289:8–25.

⁶² Trial Tr. (Sweeney) 104:16–24; Trial Tr. (Weissinger) 1290:5–7, 1290:16–23.

⁶³ Trial Tr. (Sweeney) 105:5–7; Trial Tr. (Weissinger) 1291:5–11.

⁶⁴ Trial Tr. (Weissinger) 1293:25–1294:1.

⁶⁵ Trial Tr. (Sweeney) 94:4–7, 98:16–99:3.

c. Fortnite's Business Model: In-App Purchases and V-Bucks

Fortnite uses the “freemium” game model, under which a game is largely free to download and play but certain additional in-game features can be purchased.⁶⁶ Epic Games primarily generates revenue by selling V-Bucks, which can be used to obtain items in *Fortnite*.⁶⁷ V-Bucks can be purchased in-app or directly from Epic Games’ website.⁶⁸ Players can use V-Bucks to purchase digital content within the app, including a “Battle Pass” (a feature that provides access to challenges and otherwise locked content) or cosmetic upgrades.⁶⁹ Unlike other games employing the freemium model, in-app purchases do not buy game play advantages in *Battle Royale*.⁷⁰ Instead, players can make in-app purchases of different items that function as forms of self-expression, including cosmetic enhancements or “skins” (*i.e.*, in-game costumes), dance moves known as “emotes,” and more.⁷¹ As of December 2020, players can also subscribe to *Fortnite Group*, which provides users with the Battle Pass for each new *Battle Royale* season, a monthly allotment of 1,000 V-Bucks and exclusive cosmetics.⁷²

Epic Games sells V-Bucks to consumers in various bundles and packages at increasing prices: 1,000 V-Bucks for \$9.99; 2,800 V-Bucks for \$24.99 and so on—all the way to 13,500 V-Bucks for \$99.99. After Epic Games implemented its hotfix on iOS (discussed at length below), Epic Games dropped V-Bucks pricing by 20% for purchases made through Epic Games’ direct payment option on iOS and Google Play, as well as for purchases on every other platform through which *Fortnite* was offered.⁷³ Notably, there is “no cost to [Epic Games for] V-Buck . . . V-Bucks themselves don’t have a marginal cost.”⁷⁴

⁶⁶ *Id.* 187:15–188:3, 226:18–19.

⁶⁷ *Id.* 189:9–11.

⁶⁸ *Id.* 188:13–21, 298:21–23.

⁶⁹ *Id.* 108:17–109:3, 188:13–189:11; Trial Tr. (Weissinger) 1300:3–7.

⁷⁰ Trial Tr. (Sweeney) 110:5–10.

⁷¹ *Id.* 108:23–109:3; Trial Tr. (Weissinger) 1299:6–8.

⁷² Trial Tr. (Weissinger) 1301:15–21.

⁷³ DX-3774.009; Trial Tr. (Sweeney) 190:6–9, 14–16.

⁷⁴ Trial Tr. (Sweeney) 190:14–16.

Although Epic Games claims that it would not have a viable way of monetizing *Fortnite* without being able to sell in-app content,⁷⁵ the record shows it monetizes *Fortnite* in nine other ways:⁷⁶

Two are internal to the game. First, since December 2020, users “can subscribe to *Fortnite Crew*, a subscription” service offered by Epic Games.⁷⁷ Second, users can pay an up-front fee to gain access to one of *Fortnite*’s game modes, *Save the World*, that also has in-app content for purchase.⁷⁸

The remaining seven are external. One, Epic Games “generates revenue . . . typically in the form of redeemable codes sold through traditional retail and online stores.”⁷⁹ Two, Epic Games generates revenue through in-game advertising or cross-promotions.⁸⁰ Three, it “has received revenue for providing third-parties with promotional codes redeemable for *Fortnite* content.”⁸¹ Four, “Epic has in the past entered into hardware bundle agreements with console makers,” through which “the console makers offered for sale a bundle containing their game consoles along with exclusive *Fortnite* cosmetics and V-Bucks”⁸² Five, “Epic has provided other partners with redeemable codes for exclusive *Fortnite* cosmetics and V-Bucks, and Epic was paid by the partner on a per redemption basis.”⁸³ Next, it “has entered into licensing agreements with brands through which it received the revenue from sales of in-game cosmetics featuring the licensed content as well as a small portion of the brand’s sales generated from *Fortnite*.”⁸⁴ Finally, it “licenses *Fortnite* intellectual property to third parties to use in physical merchandise, such as toys, apparel, accessories and home goods. In some circumstances, such physical merchandise also may include a code that can be redeemed for *Fortnite* in-game content.”⁸⁵

⁷⁵ Trial Tr. (Weissinger) 1303:18–1306:7.

⁷⁶ DX-3691.008–.010.

⁷⁷ Trial Tr. (Weissinger) 1357:17–25; DX-3691.009.

⁷⁸ DX-3691.009.

⁷⁹ *Id.*

⁸⁰ DX-3691.010; *see also* Trial Tr. (Weissinger) 1306:19–1307:7, 1311:7–1312:1.

⁸¹ DX-3691.010.

⁸² *Id.*

⁸³ *Id.*

⁸⁴ *Id.*

⁸⁵ *Id.*

Based on the freemium model which relies upon in-app purchases, as well as these alternative ways of monetization, *Fortnite* is quite lucrative and integral to Epic Games' overall business operations.⁸⁶ Given that *Fortnite* utilizes cross-platform technology to capture a larger audience and appears on several different platforms, Epic Games faces commission rates on its in-app purchases. Generally, plaintiff must pay 30% across most platforms. Indeed, for example, Epic Games has agreed to such a rate on all *Fortnite* transactions via the Microsoft (Xbox) Store, the PlayStation Store, the Nintendo eShop, and Google Play.⁸⁷ Epic Games has also agreed to extra payments for certain platform holders above and beyond the standard 30% commission rate. For example, for all *Fortnite* transactions via the PlayStation Store, Epic Games agreed to make additional payments to Sony *above* this commission rate based on the amount of time that PlayStation users play *Fortnite* cross-platform.⁸⁸

d. *Fortnite* on the iOS Platform

In 2018, *Fortnite* debuted on the iOS platform. Epic Games followed its prior business model and distributed *Fortnite* using a “freemium” model, in which a user can download the application for free but has the opportunity to purchase certain in-app content. Mr. Sweeney “attribute[s] a lot of [Epic Games’] success” to this business model. This kind of business model is facilitated by the App Store, including IAP.⁸⁹

Although Epic Games has had disputes and discussions with other platform owners as to cross-play policies (including cross-platform, cross-progression, and cross-wallet), originally it did not encounter any such difficulty with Apple. Prior to *Fortnite*’s launch on iOS devices, Epic Games sought to leverage Apple’s significant interest in “the mobile version of [*Fortnite Battle Royale*]” to obtain Apple’s support in operationalizing cross-play capabilities and to secure marketing support from Apple. Apple cooperated: before *Fortnite*’s debut on the iPhone, Apple operationalized cross-platform play. This included changing its guidelines to expressly permit cross-platform functionalities that were similar to what Epic Games sought, and Apple continued to permit such cross-functionality on *Fortnite* while the game remained on the App Store.⁹⁰ In addition to cross-platform play, Apple also facilitated cross-progression (game progress synced across platforms), and cross-wallet functionality (allowing purchases from one platform to be used on others).⁹¹ Epic Games has acknowledged that Apple’s permissive cross-

⁸⁶ Trial Tr. (Sweeney) 289:21-290:25.

⁸⁷ DX-3582.004-.005; DX-3464.012, .027, .031; Trial Tr. (Sweeney) 142:19-143:1, 161:13-15; Trial Tr. (Weissinger) 1349:14-23.

⁸⁸ Ex. Depo. (Kreiner) 52:13-19; DX-4519.003-.004; Trial Tr. (Sweeney) 198:10-21, 238:1-238:5, 308:14-23.

⁸⁹ Trial Tr. (Sweeney) 187:15-188:7; Trial Tr. (Schiller) 2791:11-18; Ex. Expert 8 (Schmalensee) ¶ 134.

⁹⁰ DX-3448.001; Trial Tr. (Sweeney) 232:18-25; PX-2619.010-.012 (§§ 3.1.1, 3.1.3).

⁹¹ Trial Tr. (Sweeney) 108:2-13, 197:1-14, 245:16-246:4.

platform policies contributed to *Fortnite*'s success as a cross-platform game and benefited Epic Games' business.⁹²

Once *Fortnite* itself was introduced, revenues from in-app purchase on Epic Games apps through the App Store roughly doubled. Indeed, Epic Games saw iOS and other mobile platforms as key to increasing *Fortnite*'s player base, as plaintiff had already reached "a point of basically full penetration on console," making acquisition of mobile customers "hugely important."⁹³ Before *Fortnite* was removed from the iOS platform, more than 115 million registered players had accessed *Fortnite* on an iOS device.⁹⁴ Of this amount, 64% of *Fortnite* for iOS players—approximately 73 million in total—had only ever played *Fortnite* on iOS devices.⁹⁵

That said, despite this staggering number of iOS *Fortnite* players, the vast majority of Epic Games' *Fortnite* revenue (93%) is generated on non-iOS platforms. Of the users who made a purchase between March 2018 and July 2020, *only 13.2% made a purchase on an iOS device—meaning that Epic Games was able to transact with 86.8% of paying Fortnite users without paying any commissions to Apple.*⁹⁶ Still, in only two short years, and with access to the iOS platform and Apple's support, *Fortnite* on iOS earned Epic Games more than \$700 million across over 100 million iOS user accounts.⁹⁷

3. Game Publisher and Distributor: Epic Games Store

a. Characteristics of the Epic Games Store

As noted above, Epic Games is involved in both game publishing and game distribution through its online store, the Epic Games Store, which launched in December 2018.⁹⁸ By way of background, a publisher "typically funds most or all of the expenses associated with [an] entire product, including development and marketing; whereas, a distributor typically only pays the cost associated with direct distribution, such as in the digital . . . bandwidth and payment with processing fees."⁹⁹ Where Epic Games serves as a publisher, its agreements provide that it first recovers all of its costs and then splits remaining revenues 60/40 with the 40% share to the

⁹² Trial Tr. (Sweeney) 196:15–25.

⁹³ DX-3233.003; Trial Tr. (Hitt) 2111:22–2112:15; Ex. Expert 6 (Hitt) ¶ 175 & Fig. 42; Trial Tr. (Weissinger) 1346:3–17.

⁹⁴ Ex. Expert 6 (Hitt) ¶¶ 62, 71, & Fig. 13.

⁹⁵ *Id.*

⁹⁶ *Id.* ¶ 69 & Fig. 14.

⁹⁷ DX-4763.

⁹⁸ Trial Tr. (Sweeney) 124:2–5; Trial Tr. (Allison) 1198:19–20, 1218:22–1219:10.

⁹⁹ Trial Tr. (Sweeney) 96:24–97:4.

developer, or 50/50.¹⁰⁰ In terms of distribution, the Epic Games Store serves as a platform to sell gaming apps which operated on PC and Mac computers.¹⁰¹ The store carries hundreds of games, including its own and many third-party titles.¹⁰²

Messrs. Sweeney and Steve Allison, Vice President and General Manager of the Epic Games Store, testified that Epic Games always had an original intent to include non-gaming apps within the Epic Games Store citing to the inclusion of *Unreal Engine* on the store page, and conversations with several other non-gaming app companies including Twitch and Discord in 2018.¹⁰³ The claim is suspect. First, the Epic Games Store only made significant moves during the pendency of this litigation and on the eve of this bench trial by including non-game apps including: the Spotify music app (December 2020), the Brave web browser, the KenShape creation tool for artists, and Itch.io, a third-party store (April 22, 2021).¹⁰⁴ Indeed, while Epic Games urges in this lawsuit that Apple must allow third-party app stores in the App Store, the Epic Games Store did not itself distribute any third-party app stores until a few days before trial (approximately April 22, 2021).¹⁰⁵ Second, neither Discord nor Twitch have submitted their own apps for inclusion on the Epic Games Store.¹⁰⁶ Finally, with respect to *Unreal Engine*, although the Epic Games Store links to it, the *Unreal Engine* has its own website with its own domain name and appears separate and apart from the Epic Games Store.¹⁰⁷

This conclusion is also supported by the design of the Epic Games Store’s website itself which markets “games” specifically. The navigation tabs on the homepage—“games on sale,” “free games,” “new and trending,” “new releases,” “top sellers,” “[t]op 20,” and “coming soon”—lead to compilations consisting entirely of games. The “top news items” tab offers only news about games. The search bar prompts the user to “search all games” (and not to “search all apps”). The “help” tab describes Epic Games Store’s consumers as “players.” Finally, the Epic Games Store’s “FAQ” describes the Epic Games Store as a “curated digital storefront for PC and

¹⁰⁰ Trial Tr. (Sweeney) 306:6–307:11; *see also* Trial Tr. (Allison) 1263:3–15; DX-3993.025.

¹⁰¹ Trial Tr. (Sweeney) 94:7–9, 123:10–13; Trial Tr. (Allison) 1198:19–20, 1199:17.

¹⁰² Trial Tr. 261:24–25 (Sweeney); Trial Tr. (Allison) 1210:20–23.

¹⁰³ Trial Tr. (Sweeney) 123:15–124:5, 262:19–24; Trial Tr. (Allison) 1199:15–1200:1.

¹⁰⁴ Trial Tr. (Sweeney) 124:22–125:8; Trial Tr. (Allison) 1199:13–14; *see also* Trial Tr. (Sweeney) 117:19–25, 121:19–25, 123:10–13, 124:15–24, 262:19–263:11, 265:7–11; Trial Tr. (Allison) 1243:3–11.

¹⁰⁵ Trial Tr. (Sweeney) 263:22–265:4.

¹⁰⁶ The Court further understands that both Twitch (an app primarily used for game streaming) and Discord (an app primarily used for voice chat in video games) operate apps that are, to use Mr. Allison’s words, “game adjacent.” Trial Tr. (Allison) 1119:24–25.

¹⁰⁷ *Id.* 1239:8–13.

Mac” that is “designed with both players and creators in mind” and is “focused on providing great games for gamers and a fair deal for game developers.”¹⁰⁸

Like other platforms, the Epic Games Store uses a commission model and markets an 88/12 split of all revenues to developers from the sale of their games. The evidence is also undisputed that this 88/12 commission is a below-cost price and the store is expected to operate at a loss for many years at this rate.¹⁰⁹

From Epic Games Store’s launch to December 2019, Epic Games collected its commission through its own payment mechanism, which it required developers to use for all game purchases and in-game purchases.¹¹⁰ Epic Games no longer requires any developer to use its payment processing system, called Epic direct payment, for in-app purchases.¹¹¹ Developers who do not use Epic direct payment do not pay Epic Games anything for in-app purchases.¹¹²

¹⁰⁸ *Id.* 1236:5–1238:10, 1238:11–19, 1238:21–1239:5, 1239:15–1240:7. The Court is not persuaded that the Epic Games Store is anything but a game store. Indeed, the Court emphasizes that its addition of non-gaming apps during the pendency of this litigation (Spotify) and on the eve of trial (the remaining apps and software) do not demonstrate that Epic Games Store is a general app store, especially for purposes of this litigation.

First, at the time of the filing of the complaint in this action, the Epic Games Store was undisputedly a game store, and the pleadings only confirm that Epic Games sought to open Epic Games Store in its then current iteration on the iOS platform. *See* Compl. (Dkt. No. 1) ¶ 27 (“Epic also built and runs the Epic Games Store, a digital video game storefront through which gamers can download various games, some developed by Epic, and many offered by third-party game developers.” (emphasis supplied)), ¶ 81 (“Epic approached Apple to request that Apple allow Epic to offer its Epic Games Store to Apple’s iOS users through the App Store and direct installation.”), ¶ 90 (“The Epic Games Store offers personalized features such as friends list management and game matchmaking services. Absent Apple’s anticompetitive conduct, Epic would also create an app store for iOS.”).

Second, the Court heard no specific evidence on these newly added apps, beyond brief descriptions of these apps and software, including on Epic Games’ monetization and revenues from such apps, or even user statistics with respect to such apps, including total and relative downloads as compared to other products in the Epic Games Store.

¹⁰⁹ Trial Tr. (Sweeney) 125:9–12, 126:1–3; Trial Tr. (Cragg) 2326:25–2327:5.

¹¹⁰ Trial Tr. (Allison) 1221:11–1222:16.

¹¹¹ Trial Tr. (Sweeney) 125:23–25; Trial Tr. (Ko) 800:4–14; Trial Tr. (Allison) 1221:21–1222:12; *see also* Trial Tr. (Sweeney) 126:1–8; 307:15–17.

¹¹² Trial Tr. (Sweeney) 125:23–25.

Because of this open policy, several app developers have elected to use their own payment and purchase functionality for in-app purchases, such as Ubisoft and Wizards of the Coast.¹¹³

Epic Games acknowledges that its commission is not merely a “payment processing” fee. The 12 percent fee is principally for access to Epic Games’ customers, but also is intended to cover all of Epic Games’ variable operating costs associated with selling incremental games to customers. It covers various services to game developers, including “hosting, player support, marketing of their games, and handling of refunds,” “a supporter/creator marketing program,” and “social media for game launches, video promotions[,] . . . featuring at physical events, such as E3[,] [a]nd sponsorships of the video games.” The commission is thus “tied into these broader ecosystem benefits that [Epic Games] provide[s] to [its] developers,” and is intended to cover the full “cost of operating the service,” “the actual distribution cost, the internet bandwidth cost, [and] the . . . cost of maintaining it.”¹¹⁴

Today, Epic Games Store has over 180 million registered accounts and more than 50 million monthly active users.¹¹⁵ It supports more than 100 third-party app developers and publishes over 400 of their apps.¹¹⁶ Epic Games Store operates a single storefront across multiple geographies.¹¹⁷

Epic Games is a would-be and self-avowed competitor of Apple in the distribution of apps.¹¹⁸ Absent the restrictions imposed by Apple, Epic Games would operate a mobile version of the Epic Games Store on iOS that would compete with Apple’s App Store.¹¹⁹

b. Finances of the Epic Games Store

As referenced, the Epic Games Store is not yet profitable due to Epic Games’ strategic plan to grow the consumer base at the expense of near-term profits and revenue.

By charging 12% commission, the Epic Games Store will not be profitable for at least several years. Current estimates indicate negative overall earnings in the hundreds of millions of dollars through at least 2027. The anticipated loss is driven by hundreds of millions of minimum guarantees that Epic Games made to developers to entice them to distribute exclusively through

¹¹³ Trial Tr. (Allison) 1223:8–20.

¹¹⁴ Trial Tr. (Allison) 1271:21–24; Trial Tr. (Sweeney) 126:9–11; Ex. Depo. (Kreiner) 242:9–243:13, 243:19–22; Ex. Depo. (Rein) 110:4–25; *see also* Trial Tr. (Allison) 1224:4–1225:7, 1232:5–13.

¹¹⁵ Trial Tr. (Allison) 1220:21–25.

¹¹⁶ *Id.* 1220:8–10, 18–20.

¹¹⁷ Trial Tr. (Sweeney) 129:8–13.

¹¹⁸ Trial Tr. (Sweeney) 95:16–20; *see also* Trial Tr. (Allison) 1233:8–17.

¹¹⁹ Trial Tr. (Sweeney) 97:24–98:4; *see also* Trial Tr. (Allison) 1233:8–17.

Epic Games Store.¹²⁰ In short, the Epic Games Store has front-loaded its marketing and user-acquisition costs to gain market share.¹²¹ Whether this gambit will ultimately work remains to be seen; Epic Games is currently outperforming its projected business plan by “about 15 percent,” and its first-party and third-party businesses are up 113% and 100%, respectively.¹²² While Epic Games now says it expects the Epic Games Store to become profitable by 2023, the store’s projected revenue from prior years has proven overly optimistic.¹²³

4. *Prior Relationship Between Apple and Epic Games*

The relationship between Apple and Epic Games dates back to at least 2010.

In 2010, Epic Games agreed to and signed a Developer Product Licensing Agreement (“DPLA”) with Apple. Epic International subsequently signed a Developer Agreement and DPLA (for the account associated with *Unreal Engine*). At the time of the signing of these contracts, Mr. Sweeney understood and agreed to key contractual terms including, that Epic Games (i) was required to pay a commission on in-app purchases; (ii) was prohibited from putting a store within the App Store; (iii) was prohibited from sideloading apps on to iOS devices; and (iv) was required to use Apple’s commerce technology for any payments. Knowing the terms, Epic Games chose to enter into those contracts. According to Mr. Sweeney, Epic Games did not have a formal business dispute with Apple or raise major objections or have existential-level concerns about the App Store’s contract terms at the time. Since 2010, there has been no material change in the terms of Epic Games’ agreements with Apple, nor in Apple’s business design.¹²⁴

¹²⁰ Trial Tr. (Sweeney) 126:12–127:6, 276:8–277:9; Trial Tr. (Allison) 1230:3–4, 1260:22–1262:8; Ex. Depo. (Kreiner) 244:2–5, 256:12–16; Trial Tr. (Cragg) 2327:3–5; DX-3712.017; DX-4638; PX-2469.007; *see also* Trial Tr. (Allison) 1232:14–22.

¹²¹ Trial Tr. (Sweeney) 126:19–23; Trial Tr. (Allison) 1214:1–1215:6, 1230:5–10; *see also* Trial Tr. (Allison) 1214:1–8 (explaining minimum guarantees), 1223:8–13 (noting that some developers have chosen not to use Epic Games’ payment processor).

¹²² Trial Tr. (Allison) 1233:2–7.

¹²³ *Id.* 1262:4–12 (“Q. And [this] also reflects that Epic expected to lose 330 to 440 million in unrecouped minimum guarantees is that right? A. We expect to invest 330 to 440 million in partnership deals, yes. . . . We don’t use the word ‘lose.’”); Trial Tr. (Sweeney) 266:1–19, 273:9–16, 276:17–277:4; DX-3818.001; DX-3993.004; Trial Tr. (Allison) 1217:25–1218:5, 1232:18–22, 1262:13–20; DX-4361.020; PX-2463.002; PX-2469.006; DX-3467.005; DX-4361.020; PX-2455.004.

¹²⁴ Trial Tr. (Sweeney) 166:16–170:9; Trial Tr. (Grant) 723:23–725:21. “Sideloading” is “the process of putting an application on the device that bypasses the store” or bypasses the “official platform means” of installing an application. *Id.* 733:17–22.

Epic Games released three iOS games before *Fortnite*, and Apple featured each of them at major events allowing Epic Games to make use of Apple’s brand.¹²⁵ This began with Epic Games’ first iOS game, *Infinity Blade*, in 2010, which it released for iOS because of the “amazing 3D capabilities” on mobile platforms and the large number of iOS users.¹²⁶

These collaborations notwithstanding, Epic Games and Mr. Sweeney began voicing discontent around the mid-2010s. In June 2015, Mr. Sweeney emailed Apple chief executive office Tim Cook urging Apple to consider “separating iOS App Store curation from compliance review and app distribution,” and noting that “it doesn’t seem tenable for Apple to be the sole arbiter of expression and commerce over an app platform approaching a billion users.”¹²⁷ A few years later, in January 2018, Mr. Sweeney sought a meeting with Apple through Mark Rein, Epic Games’ Vice President, “to talk about the potential for iOS and future Apple things to operate as open platforms” and discuss how Epic Games has “a PC and Mac software store and would love to eventually support it on iOS.” He added: “If the App Store we[re] merely the premier way for consumers to install software, and not the sole way, then Apple could curate higher quality software overall, without acting as a censor on free expression and commerce on the platform”¹²⁸

Despite these disagreements, Epic Games proceeded to more closely intertwine itself with the iOS platform. In early 2018, Epic Games and Apple arranged for the release of *Fortnite*. By that time, *Fortnite* was “doing incredible” and was “basically a cultural phenomenon.”¹²⁹

5. Project Liberty

At the end of 2019 Tim Sweeney conceived of a plan called “Project Liberty”¹³⁰ which was a highly choreographed attack on Apple and Google, Inc. The record reveals two primary reasons motivating the action. First and foremost, Epic Games seeks a systematic change which would result in tremendous monetary gain and wealth. Second, Project Liberty is a mechanism to challenge the policies and practices of Apple and Google which are an impediment to Mr. Sweeney’s vision of the oncoming metaverse.

¹²⁵ Trial Tr. (Fischer) 937:12–20; Ex. Depo. (Malik) 117:7–24.

¹²⁶ DX-3710.006; Trial Tr. (Sweeney) 89:22–90:5, 90:24–91:3.

¹²⁷ PX-2374.001.

¹²⁸ PX-2421.001.

¹²⁹ Trial Tr. (Fischer) 937:23–938:10; Trial Tr. (Weissinger) 1337:19–21.

¹³⁰ DX-3774 (board presentation); DX-4419.001 (Mr. Sweeney requested to be “in the loop on this topic 100%”); Trial Tr. (Sweeney) 88:6–7, 170:10–171:9, 280:7–10, 283:6–15 (approving the strategic decisions for Project Liberty); DX-4072 (developing a project “War Room”); DX-4561 (outlining detailed timelines).

The Court understands that, based on the record, the concept of a metaverse is a digital virtual world where individuals can create character avatars and play them through interactive programmed and created experiences. In Mr. Sweeney’s own words, a metaverse is “a realistic 3D world in which participants have both social experiences, like sitting in a bar and talking, and also game experiences”¹³¹ In short, a metaverse both mimics the real world by providing virtual social possibilities, while simultaneously incorporating some gaming or simulation type of experiences for players to enjoy. These experiences can be created by developers such as is the case with the *Battle Royale* and *Save the World* modes in *Fortnite*. In other instances, these experiences can be user-created, such as is the case with the *Creative* and *Party Royale* modes in *Fortnite*, or general experiences in the video game *Roblox*.¹³² Epic Games’ and Mr. Sweeney’s plans for *Fortnite* and its metaverse involved shifting the video game from primarily relying on the former modes (*i.e.*, developer designed, traditionally gaming, and competitive modes) to the latter modes (*i.e.*, social and creative modes), where users-becoming-creators would themselves be rewarded and enriched. The Court generally finds Mr. Sweeney’s personal beliefs about the future of the metaverse are sincerely held.

To Mr. Sweeney and Epic Games, the metaverse is the future of both gaming and entertainment, and Apple’s policies and practices are a hurdle which pose a problem. Indeed, for Mr. Sweeney, “reaching the entire base of Apple is 1 billion iPhone consumers is a paramount goal for our company, as *Fortnite* expands beyond being a game into this larger world of the metaverse.”¹³³ Both Mr. Sweeney and Epic Games’ employees and officers generally testified that “iOS is a vital platform for a business” and that it is “the only way we can access a hundred percent of [a platform’s] users or at least have the option of accessing a hundred percent of that market.”¹³⁴

¹³¹ Trial Tr. (Sweeney) 325:14–17. Mr. Sweeney acknowledged that the film *Ready Player One* contains a recent portrayal of an imagined and futuristic, albeit dystopian, metaverse. *Id.* 325:10. Mr. Sweeney also cited the book *Snow Crash* as an example of the depicted metaverse, which he remarked “describes this emerging social entertainment medium that transcends gaming.” *Id.* 325:24–326:1.

¹³² For instance, Mr. Sweeney described an experience in one of these latter modes in *Fortnite*, involving utilizing player character avatars watching a Netflix show:

All in the virtual 3D world. You can stand there and watch Netflix with your friends, and it’s different than watching it in front of the TV. You can talk to your friends and you can emote and throw tomatoes at the screen. And so it is a very different experience than either a game or Netflix.

Id. 326:6–11.

¹³³ *Id.* 112:13–17.

¹³⁴ *Id.* 112:3; Trial Tr. (Grant) 671:13–20.

Project Liberty planning began in earnest in the first quarter of 2020.¹³⁵ The plan was to attack Apple’s (and Google’s) software distribution and payment apparatuses¹³⁶ which Epic Games described as “an attempt to provide developer choices for payment solutions and bring that benefit to the customers in a platform where [that] choice is not available.”¹³⁷ Said differently, the “platform fees” posed “an existential issue” to both the company’s business plans and Mr. Sweeney’s personal ambitions for *Fortnite*, its digital gaming and retail store, and the evolving metaverse.¹³⁸ Internally, Epic Games also hoped to revive and reinvigorate *Fortnite* by pivoting its business whereby player-developers could create new content and plaintiff could “shar[e] [a] majority of profit with [those] creators.”¹³⁹

Key to Project Liberty’s deployment, Epic Games engineered a “hotfix” to covertly introduce code that would enable additional payment methods for the iOS and Android versions of *Fortnite*.¹⁴⁰ Hotfixes function by coding an app to check for new content that is available on the developer’s server or by introducing new instructions on how to configure settings in the app.¹⁴¹ In general, a developer can use hotfixes to activate content or features in an app that are in the code but are not initially available to users. The content or feature is accessible only after the app checks the developer’s server and is “notified” by the server to display the new content or feature.¹⁴² Across all platforms where *Fortnite* is available, including iOS, Epic Games has used hotfixes to enable hundreds of new features and content elements and to correct configuration issues since *Fortnite* was first added to the App Store.¹⁴³ By contrast, the Project Liberty hotfix has no analogue as it clandestinely enabled substantive features in willful violation of the contractual obligations and guidelines.

By May 11, 2020, the key components of Epic Games’ strategy were in place: “We submit a build to Google and Apple with the ability to hotfix on our payment method We

¹³⁵ Trial Tr. (Sweeney) 152:24–153:4. Notably, Epic Games decided to target *only* Apple and Google in its crusade even though it generally faced similar 30% rates on every platform where it sold products, except a computer platform.

¹³⁶ Trial Tr. (Sweeney) 152:9–53:4; DX-3774.002.

¹³⁷ Trial Tr. (Ko) 804:12–17.

¹³⁸ DX-3774.004.

¹³⁹ DX-3774.002–.004.

¹⁴⁰ Trial Tr. (Sweeney) 153:14–15, 154:25; Trial Tr. (Grant) 736:11–15.

¹⁴¹ Trial Tr. (Grant) 734:10–13.

¹⁴² *Id.* 734:22–735:9.

¹⁴³ *Id.* 735:15–19 (“It would be like a weekly occasion. We would rotate different types of game notes in and out. If there was a big event . . . taking place during the season, that would be hotfixed on at the appropriate time so users could experience it.”).

flip the switch when we know we can get by without having to update the client for 3 weeks or so. Our messaging is about passing on price savings to players.”¹⁴⁴ In parallel, Epic Games developed “Epic Mega Drop,” its simultaneous plan to lower the price of *Fortnite* items by an average of 20 percent on certain platforms.¹⁴⁵ “Epic Mega Drop” would reduce pricing on platforms other than Apple’s and Google’s, even though Epic Games was still paying 30% commissions to the console makers.¹⁴⁶ Epic Games also planned to assure its console partners that the reduction in price for V-Bucks could be recouped through the sales of more expensive bundles or items with “mythic” rarity.¹⁴⁷

Project Liberty included a public narrative and marketing plan. Epic Games recognized that it was “not sympathetic”¹⁴⁸ and that if Apple and Google blocked consumers from accessing the app, “[s]entiment will trend negative towards Epic.”¹⁴⁹ “[T]he critical dependency on going live with our VBUCKS price reduction efforts is finding the most effective way to get Apple and Google to reconsider without us looking like the baddies.”¹⁵⁰

To these ends, Epic Games wanted to “[g]et players, media, and industry on ‘Epic’s side,’” by “[c]reat[ing] a narrative that we are benevolent,” and at the same time make Apple out to be the “bad guys.”¹⁵¹ Epic Games retained a public relations firm and devised, in effect, a two-phase communications plan.¹⁵² The first phase consisted of actions before the activation of the plan such as creating an affiliated advocacy group, and a second phase that would galvanize public sentiment through social media outreach and videos.¹⁵³

With regard to the first phase, Epic Games implemented its plan throughout the summer of 2020 by creating the Coalition for App Fairness, and “charged [it] with generating continuous media and campaign tactic pressure” on Apple and Google. Epic Games hired a consultant to

¹⁴⁴ DX-4419.002; Trial Tr. (Grant) 767:15–18.

¹⁴⁵ Trial Tr. (Sweeney) 156:3–16.

¹⁴⁶ DX-4561.006; Trial Tr. (Weissinger) 1431:1–5.

¹⁴⁷ Trial Tr. (Weissinger) 1436:9–19; DX-4652.003.

¹⁴⁸ DX-4177.001; Trial Tr. (Weissinger) 1414:2–15.

¹⁴⁹ DX-4018.054.

¹⁵⁰ DX-4419.002.

¹⁵¹ DX- 4561.020; DX-3641.001.

¹⁵² DX-4561.020; DX-3641.001; DX-3681.012; DX-4185.001; DX-4561.037–.038; Trial Tr. (Weissinger) 1413:9–12, 1417:19–1418:7. Epic Games paid it \$300,000 in connection with Project Liberty.

¹⁵³ DX-4561.037–.038

“help to establish a reason for [the Coalition] to exist (either organic or manufactured).” Epic Games then concealed the Coalition’s existence until after the hotfix was triggered on August 13, 2020.¹⁵⁴

Epic Games assumed its breach would result in the removal of *Fortnite* from the iOS and Android platforms. In fact, Mark Rein, Epic Games’ co-founder, predicted “there’s a better than 50% chance Apple and Google will immediately remove the games from their stores the minute we do this” and Daniel Vogel, the Chief Operating Officer, predicted Google and Apple will immediately pull the build for new players.” “They may also sue us to make an example,” he added.¹⁵⁵

While Epic Games was willing to wage war against Apple and Google, it was not so inclined to crusade against the console platform owners: namely, Nintendo (Switch), Microsoft (Xbox), and Sony (PlayStation). Epic Games therefore planned to warn these console partners in advance about an upcoming pricing change for V-Bucks and to reassure them that they were not “next on [Epic Games’] list.” As explained in an email to Microsoft on August 5, 2020, Mr. Sweeney alluded to Project Liberty which he boasted would “highlight the value proposition of consoles and PCs, in contrast to mobile platforms.” Two days later he wrote, “you’ll enjoy the upcoming fireworks show.”¹⁵⁶

Project Liberty required extensive planning and testing. Specialized engineers and an in-house information security team attempted to hack the code to ensure that Apple could not “reveal the intent” of the hotfix when it was submitted.¹⁵⁷ Epic Games also used analytics to determine the number of players that would receive the hotfix once triggered.¹⁵⁸

By the end of June 2020, Epic Games had no interest in the parallel litigation which was pursuing similar ends. Nor did it intend to wait for the resolution of the ongoing *Pepper* and *Cameron* cases. Epic Games merely “ignored” them and “went forward on [its] own.”¹⁵⁹ In

¹⁵⁴ DX-3774.003; DX-3297.002; Trial Tr. (Weissinger) 1418:17–1420:5–8. One of the members of the Coalition for App Fairness is Eristica, a company that developed an app rejected by App Review that “paid folks to participate in a dare challenge” and when it was rejected “one of the dares was daring someone to jump off a bridge and video it” and other challenges “could also risk some pretty serious harm.” Trial Tr. (Kosmyinka) 1087:9–1088:18.

¹⁵⁵ DX-4419.001–.002; *see also* Ex. Depo. (Shobin) 59:24–60:5 (Epic Games understood that Project Liberty “jeopardize[d] *Fortnite*’s availability on the App Store”).

¹⁵⁶ DX-4561.005, .024; DX-4652.001, .010; Trial Tr. (Weissinger) 1431:6–15; DX-4579.001; DX-3478.001; Trial Tr. (Sweeney) 292:14–293:8, 294:2–10.

¹⁵⁷ Trial Tr. (Grant) 765:11–766:2.

¹⁵⁸ Apple Ex. Depo. (Shobin) 239:9–25; DX-3083; *see also* Trial Tr. (Schmid) 3241:20–24 (explaining that Epic Games used TestFlight and App Analytics).

¹⁵⁹ Trial Tr. (Sweeney) 155:13–25.

other words, Epic Games decided it would rush to court with its own plan to protect its self-avowed interests in the “metaverse” and had established a rough timeline, to which it generally adhered: first communicating with Apple in June/July and then implementing the hotfix and marketing blitz in August.¹⁶⁰

Thus, on June 30, 2020, Epic Games renewed the DPLAs for its account, the Epic International account, and a related entity (KA-RA S.a.r.l.) account by the payment of separate consideration.¹⁶¹ With this backdrop, Epic Games sought a “side letter” or other special deal from Apple that would provide plaintiff with unique, preferable terms.¹⁶² Mr. Sweeney sent an email to Apple executives, including Mr. Cook, requesting the ability to offer iOS consumers with: (i) competing payment processing options, “other than Apple payments, without Apple’s fees, in *Fortnite* and other Epic Games software distributed through the iOS App Store”; and (ii) a competing Epic Games Store app “available through the iOS App Store and through direct installation that has equal access to underlying operating system features for software installation and update as the iOS App Store itself has, including the ability to install and update software as seamlessly as the iOS App Store experience.”¹⁶³ Mr. Sweeney highlights that these two offerings would allow consumers to pay less for digital products and allow developers to earn more money. Although Mr. Sweeney wrote that he “hope[d] that Apple w[ould] also make these options equally available to all iOS developers in order to make software sales and distribution on the iOS platform as open and competitive as it is on personal computers,”¹⁶⁴ Mr. Sweeney admitted while testifying under oath that he “would have” accepted a deal “for [Epic Games] and no other developers.”¹⁶⁵ In his email, Mr. Sweeney did not offer to pay Apple any portion of the 30 percent it charges on either app distribution or for in-app purchases.

On July 10, 2020, Apple Vice President and Associate General Counsel Douglas G. Vetter responded to Mr. Sweeney’s email with a formal letter communicating, in essence: No. As relevant here, Mr. Vetter wrote:

Apple has never allowed this. Not when we launched the App Store in 2008. Not now. We understand this might be in Epic’s financial interests, but Apple strongly believes these rules are vital to the health of the Apple platform and carry enormous benefits for both consumers and developers. The guiding principle of the App Store is to provide a safe, secure and reliable experience for users and a great opportunity for all developers to be successful but, to be clear,

¹⁶⁰ DX-4561.005.

¹⁶¹ Trial Tr. (Sweeney) 283:16–284:1.

¹⁶² *Id.* 149:4–7, 285:7–22.

¹⁶³ DX-4477.

¹⁶⁴ *Id.*

¹⁶⁵ Trial Tr. (Sweeney) 337:13–338:2.

when it comes to striking the balance, Apple errs on the side of the consumer.

Mr. Vetter also reiterated that Epic Games' request to establish a separate payment processor would interfere with Apple's own IAP system, which has been used in the App Store since its inception.¹⁶⁶

On July 17, 2020, Mr. Sweeney responded to what he described as a "self-righteous and self-serving screed," writing that he hoped "Apple someday chooses to return to its roots building open platforms in which consumers have freedom to install software from sources of their choosing, and developers can reach consumers and do business directly without intermediation." He stated that Epic Games "is in a state of substantial disagreement with Apple's policy and practices," and promised that it would "continue to pursue this, as [it] ha[s] done in the past to address other injustices in [the] industry." Epic Games did not reveal its plans to enable an alternate payment system through a hotfix.¹⁶⁷

Next, in fulfilling Mr. Sweeney's promise, Epic Games covertly introduced a "hotfix" into the *Fortnite* version 13.40 update on August 3, 2020. Epic Games did not disclose that this hotfix would enable a significant and substantive feature to *Fortnite* permitting a direct pay option to Epic Games that would be activated when signaled by Epic Games' servers. Until this signal was sent out, this direct pay option would remain dormant. When activated, however, this direct pay option would allow iOS *Fortnite* players to choose a direct pay option that would circumvent Apple's IAP system. Relying on the representations that intentionally omitted the full extent and disclosure of this hotfix, Apple approved *Fortnite* version 13.40 to the App Store.¹⁶⁸

The hotfix remained inactive until the early morning of August 13, 2020, when Epic Games activated the undisclosed code in *Fortnite*, allowing Epic Games to collect in-app purchases directly.¹⁶⁹ *Fortnite* remained on the App Store until later that morning, when Apple removed *Fortnite* from the App Store and it remains unavailable to this day. Epic Games timed the hotfix to go live two weeks before the launch of *Fortnite*'s Season 14.

Later that same day, the second phase came into full effect. Epic Games had prepared several videos, communications, and other media to blitz Apple. Epic Games filed this action and unleashed a pre-planned, and blistering, marketing campaign against Apple both on Twitter and with the release of a parody video of the iconic Apple 1984 commercial. The video called "*1980 Fortnite*" used the game-mode style of *Fortnite* and presented an in-brand explanation of

¹⁶⁶ DX-4140.

¹⁶⁷ DX-4480.001.

¹⁶⁸ Trial Tr. (Grant) 736:1–15, 763:10–15; Trial Tr. (Sweeney) 170:16–171:9; DX-4138.002; Trial Tr. (Kosmynka) 1089:3–9.

¹⁶⁹ Trial Tr. (Sweeney) 153:21–25, 294:11–16, 128:14–15, 154:6–10, 170:12–15; Trial Tr. (Grant) 736:6–15; Trial Tr. (Weissinger) 1426:20–1428:16.

what Epic Games had done, namely a *Fortnite* character destroying an “Apple overlord.” On its website, the Coalition proclaimed that: “For most purchases made within the App Store, Apple takes 30% off the purchase price. No other transaction fee—in any industry—comes close.”¹⁷⁰ The Coalition did not announce that Epic Games faced similar 30% rates from console platform owners. Epic Games also announced a *Fortnite* tournament in support of its lawsuit with in-game prizes and it released a limited time skin in *Fortnite* called the Tart Tycoon,¹⁷¹ among other actions.¹⁷²

The following day, on August 14, 2020, Apple responded sternly. It informed Epic Games that, based on its breaches of the App Store guidelines, and the DPLA, it would be revoking all developer tools, which would preclude updates for its programs and software. Apple gave Epic Games two weeks to cure its breaches and to comply with the App Store guidelines and the agreements. Apple also identified general consequences for any failure to comply, but specifically cited *Unreal Engine* as potentially being subject to its decision should Epic Games fail to comply within the two-week period.¹⁷³

Thereafter, on August 17, 2020, Epic Games filed the request for a temporary restraining order, requesting the reinstatement of *Fortnite* with its activated hotfix onto the App Store, and enjoining Apple from revoking the developer tools belonging to the Epic Games and its affiliates. The Court declined to reinstate *Fortnite* onto the App Store, but temporarily restrained Apple from taking any action with respect to the plaintiff’s affiliates’ developer tools and accounts.¹⁷⁴

On August 28, 2020, on the expiration of the two-week deadline, Apple terminated Epic Games’ developer program account, referenced as Team ID ‘84.¹⁷⁵ Apple subsequently, and repeatedly, offered to allow Epic Games to return *Fortnite* to the App Store, so long as Epic Games agreed to comply with its contractual commitments. Epic Games has consistently declined.¹⁷⁶

¹⁷⁰ Trial Tr. (Sweeney) 295:14–17; DX-4167.002.

¹⁷¹ Modeled presumably on Mr. Cook’s likeness.

¹⁷² DX-3724.001–.002; Trial Tr. (Sweeney) 295:2–17, 297:2–24.

¹⁷³ DX-3460.

¹⁷⁴ See generally Dkt. No. 48 (Order Granting in Part and Denying in Part Motion for Temporary Restraining Order). Meanwhile, discovery in the parallel cases was contentious, yet ongoing.

¹⁷⁵ Trial Tr. (Sweeney) 171:10–172:2; Dkt. 428 ¶ 34.

¹⁷⁶ Trial Tr. (Cook) 3918:18–3919:6.

On October 9, 2020, the Court issued an Order Granting in Part and Denying in Part the motion for preliminary injunction.¹⁷⁷ Given the issuance of the injunction, and that discovery from the other two class action lawsuits could be leveraged in this action, the Court granted Epic Games' request to conduct a bench trial on an expedited basis. Apple objected requesting, at a minimum, three additional months.

C. Apple: Relevant History of the iOS and iOS Devices

1. The Early Years

In 2007, Apple developed the iPhone creating a new and innovative ecosystem to break into the cellular device market with established competitors such as Samsung, Nokia, LG, Sony, Blackberry, Motorola, Windows Mobile, and Palm. No one disputes that the iPhone was revolutionary and fundamentally changed the cellular device market. Given the years that have passed, one may forget how fundamentally different the iPhone was to the alternatives. After 30 months of development, Apple offered consumers a new design, with a multi-touch interface powered by advanced hardware and software architecture. The device offered users the ability to access email, browse the web, and perform certain software applications by simply tapping a square-ish icon on the screen called an “app,” short for a software application. These apps operate from a foundational layer of software called an operating system which, in the iPhone ecosystem, is called the iOS.

Initially, when the iPhone was first launched, Apple developed and preinstalled the device with a few “native” apps. “Native” apps are those apps which are developed for a particular mobile device as opposed to “web” apps which are Internet-based and allow applications to be accessed and enabled on a mobile device by using a web browser on the device. Initially, Apple prohibited downloads of native apps from any third party.

Shortly after launch, Apple executives hotly debated whether to open development of native apps to third-party developers. As history knows, those in favor succeeded. The gamble literally paid off. Since 2007, the industry has continued to evolve and transform rapidly.

2. Role of App Developers Generally and Epic Games

The 2007 iPhone pales in comparison to today's version. With 20-20 hindsight, we can conclude that Apple's gamble to save a languishing company paid off.¹⁷⁸ The lens with which to evaluate those early seminal years matters. Apple was not the monolith it is today. It is easy, but not fair, to twist words today for self-serving reasons and forget the landscape in which they were made.

As innovators in the early days, Apple executives were navigating trying to determine what would work and what would not. A few key principles guided decision-making, at least initially. First and foremost, the iPhone was a cellphone. If the cellphone did not work or

¹⁷⁷ See generally Dkt. No. 118.

¹⁷⁸ Trial Tr. (Schiller) 2715:17–25.

crashed, the product would not be successful regardless of all the bells and whistles. Second, given the introduction of apps, securing the device from malicious software was paramount.

Many developers responded to the iPhone launch by “jailbreaking phones and writing native applications.” Jailbreaking occurs when a developer modifies Apple’s iOS to enable the installation of unauthorized software, including applications from other interfaces. Jailbreaking can create severe security risks regarding installation of malicious apps and data exposure. Despite warnings regarding the risks, developers continued the practice which precipitated renewed discussions within Apple to permit authorized native apps to be developed by third-party developers.¹⁷⁹

As the discussions ensued, the core principles remained: reliability of the device as a cellphone and device security. With these objectives in mind, on October 17, 2007, Apple announced that it would allow third-party developers to create iOS apps by licensing them with the interfaces and technology to do so. Apple then dedicated resources to create, and then release on March 6, 2008, a software development kit or SDK as well as information for a series of application programming interfaces or APIs to allow developers to create apps which would work on Apple’s proprietary operating system. The APIs unlocked features such as location awareness functionality, media applications, video playback, and numerous other tools to enhance the developer’s ultimate product.

The creation, constant update, and modernization of the SDKs and APIs was not insignificant. To protect its system, Apple built tools, kits, and interfaces that would allow other developers to build native apps. Epic Games did not introduce any evidence to rebut Apple’s claim that in those initial years, the engineering work was novel, sophisticated, time-consuming and expensive. These tools simplified and accelerated the development process of native apps. Today, years later, as with many industries, it is not surprising that the more sophisticated, better financed, and larger-scale developers, such as Epic Games, may find less value in today’s SDKs and APIs. That does not necessarily apply across the board to all developers, nor does it eliminate value in its entirety.

3. *Apple’s Contractual Agreements with Developers*

Apple distributes its basic developer tools for free but charges an annual fee for membership in its developer program to distribute apps and which allows access to, for instance, more advanced APIs (many of which are protected by patents, copyrights, and trademarks) and beta software.¹⁸⁰ Through the DPLA, Apple licenses, wholesale, its intellectual property.

¹⁷⁹ Ex. Depo. (Forstall) 86:1–5; Ex. Expert 11 (Rubin) ¶ 76; Trial Tr. (Schiller) 2729:11–2730:17.

¹⁸⁰ Trial Tr. (Schiller) 2758:3–8, 2758:17–24.

To join the “Developer Program,” one must execute the DPLA, pay a fee of \$99.00¹⁸¹ and provide some basic information such as a valid debit/credit card; a valid name, address and telephone number; and sometimes, a government-issued photo identification. In the case of an entity, Apple also requires the entity’s legal name, D-U-N-S number, as well as other information.

In the beginning, the App Store’s U.S. storefront offered 452 third-party apps (including 131 game apps) by 312 distinct developers. In fiscal year 2019, there were over 300,000 game apps available on the App Store.¹⁸² With over 30 million registered iOS developers,¹⁸³ it is not particularly surprising, or necessarily nefarious, that Apple does not negotiate terms generally. With few exceptions, Apple maintains the same relationships with developers whether big or small. This decision, too, is controversial as the impact varies between small and large developers.

a. Key Terms of the DPLA and App Guidelines

Relevant here, the DPLA details programming requirements, which the Court outlines first, and establishes payment terms, which the Court discusses second. While reduced here to bullet points and footnotes, the DPLA is a portfolio licensing agreement with complex and comprehensive provisions addressing not only intellectual property rights, but those relating to marketing, agency, indemnity, and myriad other considerations. Moreover, the DPLA changed over the last decade. Unless otherwise stated, the Court focuses on the 79-page version (excluding schedules) governing Apple’s relationship with Epic Games in August 2020.¹⁸⁴

Thus, with respect to programming, developers are required to:

- Certify that they will comply with the terms of the agreement (Section 3.1)¹⁸⁵;
- Use the software in a manner consistent with Apple’s legal rights (Section 3.2)¹⁸⁶;

¹⁸¹ This fee also includes the ability to consult twice with the Apple technical services team. Each additional incident requires paying a \$99 “per incident” payment.

¹⁸² Ex. Expert 6 (Hitt) ¶ 169.

¹⁸³ Trial Tr. (Schiller) 2759:9–17.

¹⁸⁴ *Id.* 2759:22–2760:9, 2761:21–25; PX-2619; Trial Tr. (Malackowski) 3701:1–14, 3642:10–15.

¹⁸⁵ Developers “certify to Apple and agree that,” among other things, they “will comply with the terms of and fulfill [their] obligations under this Agreement, including obtaining any required consents for [their] Authorized Developers’ use of the Apple Software and Services, and [developers] agree to monitor and be fully responsible for all such use by [their] Authorized Developers and their compliance with the terms of this Agreement.” PX-2619.015.

¹⁸⁶ “Applications for iOS Products, AppleWatch, or Apple TV developed using the Apple Software may be distributed only if selected by Apple (in its sole discretion) for

- Create apps for Apple products which could only be distributed through the App Store (Section 3.2)¹⁸⁷;
- Submit proposed apps for review to ensure they were properly documented and did not contravene the program requirements (Section 3.3.2¹⁸⁸ and 3.3.3¹⁸⁹);
- Configure apps to use IAP when the purchases are subject to the commission (Section 3.2.(f)¹⁹⁰); and
- Agree not to “attempt to hide, misrepresent or obscure any features, content, services or functionality” (Section 6.1)¹⁹¹.

distribution via the App Store, Custom App Distribution, for beta distribution through TestFlight, or through Ad Hoc distribution as contemplated in this Agreement.” PX-2619.016.

¹⁸⁷ *Id.*

¹⁸⁸ “Except as set forth in the next paragraph, an Application may not download or install executable code. Interpreted code may be downloaded to an Application but only so long as such code: (a) does not change the primary purpose of the Application by providing features or functionality that are inconsistent with the intended and advertised purpose of the Application as submitted to the App Store, (b) *does not create a store or storefront for other code or applications*, and (c) does not bypass signing, sandbox, or other security features of the OS.

An Application that is a programming environment intended for use in learning how to program may download and run executable code so long as the following requirements are met: (i) no more than 80 percent of the Application’s viewing area or screen may be taken over with executable code, except as otherwise permitted in the Documentation, (ii) the Application must present a reasonably conspicuous indicator to the user within the Application to indicate that the user is in a programming environment, (iii) *the Application must not create a store or storefront for other code or applications*, and (iv) the source code provided by the Application must be completely viewable and editable by the user (e.g., no pre-compiled libraries or frameworks may be included with the code downloaded).” (Emphasis supplied.)

¹⁸⁹ “Without Apple’s prior written approval or as permitted under Section 3.3.25 (In-App Purchase API), an Application may not provide, unlock or enable additional features or functionality through distribution mechanisms other than the App Store, Custom App Distribution or TestFlight.”

¹⁹⁰ “You will not, directly or indirectly, commit any act intended to interfere with . . . Apple’s business practices including, but not limited to, taking actions that may hinder the performance or intended use of the App Store, . . . Further, You will not engage, or encourage others to engage, in any unlawful, unfair, misleading, fraudulent, improper, or dishonest acts or business practices relating to Your Covered Products (e.g., engaging in bait and-switch pricing, consumer misrepresentation, deceptive business practices, or unfair competition against other developers).”

¹⁹¹ “You may submit Your Application for consideration by Apple for distribution via

In 2010, Apple also created the App Guidelines which are more fully discussed below.¹⁹² As a corollary to Section 3.3.3 of the DPLA, Section 3.1.1 of the App Guidelines was the clearest articulation of the anti-steering provision with respect to in-app purchases. It reads:

If you want to unlock features or functionality within your app, (by way of example: subscriptions, in-game currencies, game levels, access to premium content, or unlocking a full version), you must use in-app purchase. Apps may not use their own mechanisms to unlock content or functionality, such as license keys, augmented reality markers, QR codes, etc. *Apps and their metadata may not include buttons, external links, or other calls to action that direct customers to purchasing mechanisms other than in-app purchase.*¹⁹³

Section 2.3.10 of the Guidelines reads: “. . . don’t include names, icons, or imagery of other mobile platforms in your app or metadata, unless there is a specific, approved interactive functionality” and Section 3.1.3 Other Purchase Methods states: “The following apps may use purchase methods other than in-app purchase. Apps in this section cannot, either within the app or through communications sent to points of contact obtained from account registration within

the App Store or Custom App Distribution once You decide that Your Application has been adequately tested and is complete. By submitting Your Application, You represent and warrant that Your Application complies with the Documentation and Program Requirements then in effect as well as with any additional guidelines that Apple may post on the Program web portal or in App Store Connect. *You further agree that You will not attempt to hide, misrepresent or obscure any features, content, services or functionality in Your submitted Applications from Apple’s review or otherwise hinder Apple from being able to fully review such Applications. . . .* You agree to cooperate with Apple in this submission process and to answer questions and provide information and materials reasonably requested by Apple regarding Your submitted Application, including insurance information You may have relating to Your Application, the operation of Your business, or Your obligations under this Agreement. . . . If You make any changes to an Application (including to any functionality made available through use of the In-App Purchase API) after submission to Apple, You must resubmit the Application to Apple. Similarly all bug fixes, updates, upgrades, modifications, enhancements, supplements to, revisions, new releases and new versions of Your Application must be submitted to Apple for review in order for them to be considered for distribution via the App Store or Custom App Distribution, except as otherwise permitted by Apple. (Emphasis supplied.)

¹⁹² All developers agree to abide by the App Guidelines, among others. PX-2619.070.

¹⁹³ PX-2790 (emphasis supplied).

the app (like email or text) encourage users to use a purchasing method other than in-app purchase.”¹⁹⁴

In terms of payment, Apple knew from the outset that developers would either distribute their apps for “free” or by selling them. The DPLA contained Schedules 1 and 2 to address each category, respectively.

“Free” as used here specifically means an app for which a consumer does not pay to download, and which does not sell any digital goods or subscriptions. Thus, free apps do not generate any revenue for Apple. However, some developers monetize their free app with advertising.¹⁹⁵ In fiscal year 2019, 83% of apps with at least one download on the App Store were free to consumers, including 76% of game apps of which there are over 300,000.¹⁹⁶

On the other hand, the “freemium model” (used by *Fortnite*) is one where the initial download is “free”, but revenue comes from in-app purchases or payments for upgrades. Apps which do charge for downloads or digital goods bought within an app fall under the purview of Schedule 2.

Section 3.4 of Schedule 2 provides the basic 30 percent rate and reads:¹⁹⁷

Apple shall be entitled to the following commissions in consideration for its services as Your agent and/or commissionaire under this Schedule 2:

- (a) For sales of Licensed Applications to End-Users located in those countries listed in Exhibit B, Section 1 of this Schedule 2 as updated from time to time via the App Store Connect site, Apple shall be entitled to a commission equal to thirty

¹⁹⁴ Apple’s anti-steering provision as it relates to subscriptions is found in Section 3.11 of the DPLA. However, as shown herein, subscriptions are not part of the action. Other related provisions in the Guidelines include 3.1.3(a) and 3.1.3(b).

¹⁹⁵ Ex. Expert 6 (Hitt) ¶¶ 134, 206.

¹⁹⁶ Trial Tr. (Hitt) 2094:13–23; Ex. Expert 6 (Hitt) ¶¶ 156, 169.

¹⁹⁷ PX-2621. Section 3.4 is preceded by sections outlining the marketing and hosting agreements between Apple and the developers, albeit Apple did not guarantee any quantifiable services.

percent (30%) of all prices payable by each End-User.¹⁹⁸

Under the terms of the DPLA, “the Licensed Applications” cannot be activated until approved by Apple. For all digital purchases, Apple charges a 30% commission and only recently instituted some exceptions. Purchases which are not digitally confirmed, such as those related to physical goods, such as take-out food or Amazon purchases, do not result in a commission to Apple.

Apple does not dictate to developers how or what to price an app or how to monetize their product. However, it did impose certain parameters, namely the prices of apps need to end in \$0.99 and must appear within predesignated bands. There is no evidence that this has impacted Epic Games at all or that it has created any widespread problems. Rather, plaintiff cites only to testimony of Matthew Fischer, Apple’s Vice President of App Review, that developers have asked “from time to time” for more flexibility. With respect to international pricing, Apple has a single “tier” but evidence was not admitted to show any problems with the tiered system.¹⁹⁹

At best, the evidence on this issue is scant and not fully developed. Mr. Fischer testified that developers have at times asked for “more flexibility to charge different prices for in-app purchases,” and Apple has consistently declined.²⁰⁰ Whether this is a significant issue is unknown. Certainly, Epic Games, the plaintiff here, never asked to change the pricing. The Court suspects that it is because of the common marketing view that ending a price in \$0.99 conveys a bargain price to the consumer. That said, Apple did little to justify the restriction.²⁰¹ On balance, the Court finds nothing anticompetitive with these two requirements based on this record.

¹⁹⁸ PX-2621. Subsection 3.4(a) proscribes a 15% rate for subscriptions which are not part of this case.

¹⁹⁹ Ex. Depo. 9 (Fischer) 266:16–24. Thus, Schedule 2 to the DPLA states that Apple markets third-party apps “at prices identified by [the developer] . . . from the pricing schedule attached . . . as Exhibit C.” Any price changes must be “in accordance with the pricing schedule.” The tiers generally require the same price across all countries; for example, a \$ 0.99 tier requires the equivalent of \$ 0.99 in local currency in India. PX-2621 § 3.1, Ex. C; PX-2202; Ex. Depo 12 (Gray) 26:3–5, 195:15–196:14, 206:13–207:18, 208:6–9.

²⁰⁰ Ex. Depo. 9 (Fischer) 266:12–19.

²⁰¹ Apple does not directly respond but argues that currency conversion is a benefit of IAP. *See* Apple FOF ¶ 692. To the extent this true, Apple has not explained why it cannot afford more flexibility in unique circumstances. Mr. Gray testified that Apple selected 99 cent tiers based on its prior experience without apparently consulting developers. Ex. Depo. 12 (Gray) 195:24–196:14.

b. Apple's App Store as an App Transaction Platform

Having made the decision to allow third-party developers to license the tools to make “apps” for the iPhone, Apple also needed to develop a place or manner in which the developers and the users could connect. Apple wrote a series of applications, combined them all, and called it the App Store. Apple designed the App Store not only to allow third-party developers to reach consumers with their apps, but to notify customers when updates were available: “tap the Update button and [the] app will be replaced by the updated version . . . over the air, all automatically.” The App Store functionality and access thereto is at the heart of the action.

Apple's late Chief Executive Officer (“CEO”), Mr. Steve Jobs, recognized that the “purpose in the App Store is to add value to the iPhone” and ultimately “sell more iPhones.” Apple's current Vice President of Developer Relations, Mr. Ron Okamoto, similarly acknowledged that well-known developers make Apple's platforms more attractive to users and lead them to buy Apple devices.²⁰² Thus, the symbiotic relationship was created.

Apple's intellectual property as it relates to the iOS ecosystem generally are significant. The record is undisputed that Apple holds approximately 1,237 U.S. patents with 559 patent applications pending. With respect to the App Store itself, Apple holds an additional 165 U.S. patents with 91 more U.S. patent applications pending. Other than these patents, Apple does not identify specifically how the rest of its intellectual property portfolio impacts the technology at issue in this case nor does it specifically justify its 30% commission based on the value of the intellectual property. It only assumes it justifies the rate.²⁰³

Over recent years, the evidence established that a significant portion of the App Store revenue is built upon long-term relationships between developers and consumers independent of Apple. Indeed, during a 2019-2020 presentation, Apple recognized this transition, noting that the “top monetizing game are services that entertain customers for years.” Specifically, “[i]n any given month, 41% of [Apple's] monthly billings are generated from apps that were downloaded more than 180 days prior,” as contrasted to 31% for apps downloaded between 30 and 180 days prior and to 28% for apps downloaded less than 30 days prior. “As a result, a significant share of our billings are generated not from apps that were just downloaded, but from apps that customers re-engage with long after the first download.” Even Apple concedes that “this engagement is almost completely driven by [App Store] developers, and the App Store does not participate in a meaningful way.”²⁰⁴

²⁰² PX-2060.018–.019; Ex. Depo. (Okamoto) 324:04–325:10; Ex. Expert 1 (Evans) ¶ 19; Ex. Expert 8 (Schmalensee) ¶ 44.

²⁰³ *See generally* Ex. Expert 12 (Malackowski) (noting that the intellectual property has value, but not providing any numerical value).

²⁰⁴ PX-608.028.

c. Apple's Commissions Rates: 30 percent; 15 percent; recent changes

Apple's establishment of a 30% commission rate has remained static since the onset. Mr. Philip Schiller, who was there at the beginning, testified that the App Store charged the same percentage as other gaming stores, like Steam and Handango. Mr. Eddy Cue, another Apple executive, who made the pricing decision with Mr. Jobs, recognized that "[t]here wasn't really any kind of App Store" when it first launched, so Apple looked at distribution of hard goods and software instead. Because distributing hard versions of software cost 40% to 50%, lowering the commission to 30% was considered a "huge decrease" intended to "get developer really excited about participating in the platform." Importantly, and undisputed, Apple chose the 30% commission without regard to or analysis of the costs to run the App Store.²⁰⁵

Prior to 2011, users could read content from subscriptions made outside iOS, but were limited to a one-time subscription, not recurring subscriptions. In 2011, Apple expanded its functionality to allow for the sales of recurring subscriptions when purchased in the app store but required a 30 percent commission.²⁰⁶ Finally, in late 2020, Apple introduced the Small Business Program. That program reduced Apple's commission to 15% for developers making less than one million dollars.²⁰⁷

Apple's implementation of the Small Business Program was spurred, in part, by the COVID-19 pandemic. However, Mr. Cook also admitted that "lawsuits and all the rest of the stuff" was "in the back of [his] head." Mr. Schiller similarly testified that the Small Developer Program began with a lot of "commentary" about "App Store's commission level," but was pushed over the edge by the pandemic. He too expressly acknowledged that the current lawsuit helped "get it done" along with "scrutiny and criticism . . . from around the world."²⁰⁸

Over time, and given Apple's success, some developers have actively complained about the 30% commission. The Court recognizes that developers have sued Apple on behalf of a class arguing that the rate is too high. Unlike those developers, Epic Games challenges the levy of *any* commission and did not offer a survey showing developers agreed with this position; only the anecdotal evidence of a couple.²⁰⁹ It is logical that no developer would want to pay prices higher than is competitive or necessary. However, it is also true that, with few exceptions, not every

²⁰⁵ Trial Tr. (Schiller) 2725:23–2726:9, 2740:8–15; Ex. Depo. 8 (Cue) 135:08–136:14, 141:13–142:09.

²⁰⁶ Trial Tr. (Schiller) 3183:9–3184:25.

²⁰⁷ *Id.* 2810:16–2811:5.

²⁰⁸ Trial Tr. (Cook) 3992:4–3993:1; Trial Tr. (Schiller) 2812:1–2813:10, 3070:13–25.

²⁰⁹ The Court also makes a distinction with respect to the testimony of Ms. Wright who explicitly was *not* testifying on behalf of Microsoft. Had Microsoft wanted to weigh in; it could have.

business is entitled to have access to what is effectively shelf space if they cannot afford to pay a commission to the platform host.

While Apple's 30 percent commission began as a corollary to the 30 percent rate being charged in the gaming industry, the evidence is substantial that the economic factors driving that rate do not apply equally to Apple. Other gaming industry participants operate under a distinctly different economic model, facing different levels of competitive pressure. *See infra* Facts § II.D.2–4. For example, unlike those in the computer gaming market, nothing other than legal action seems to motivate Apple to reconsider pricing and reduce rates.²¹⁰

4. Apple's Management of Apps – App Guidelines

Initially, Apple envisioned the App Store as a highly curated selection of apps. With only 500, then 25,000, apps in its initial collection, the vision was achievable.²¹¹ As the number of apps skyrockets, Apple strains in its claim that the current version of the App Store promises the same curated product. Though Apple has removed over 2 million outdated apps, and rejected those not meeting the Guidelines, the App Store still another contains 2 million apps of which over 300,000 are games.²¹²

Curation in the current era merely means that an app must comply with the App Guidelines, first published in 2010. Some of the Guidelines are not reasonably controversial.²¹³ For instance, Apple will not authorize certain apps such as porn, malicious apps, 'unforeseen' apps, apps that invaded one's privacy, illegal apps, and even bandwidth hog[s].²¹⁴ Epic Games claims that Apple's efforts in this regard are substandard, raising concerns regarding the effectiveness and quality of the current review process. Unfortunately, Epic Games only scratched the surface and did not provide particularly compelling evidence of its perspective.²¹⁵

Missing from the record is any normative measure of what standard guidelines should be. Perfection is not practical nor the business norm. Internal documents show that Apple responded to developers who were complaining of the time for reviewing of apps and updates. Apple

²¹⁰ The Court is aware of the additional, and unchallenged, concerns relating to money laundering, fraud, and other risks that Apple debated in terms of changing the commission. Trial Tr. (Schiller) 2813:11–2814:7; PX-2390.200. While valid, at least with respect to money laundering, the reference point was 15% which is half the static 30% commission rate.

²¹¹ PX-0880.020; Trial Tr. (Schiller) 2754:7–8; 2785:15–25.

²¹² Trial Tr. (Schiller) 2833:25–2834:2; 2846:11–2847:24.

²¹³ PX-0056A; Trial Tr. (Schiller) 2833:25–2834:2.

²¹⁴ PX-2619, § 3.3.20, 3.3.21, 3.3.26, 3.3.29.

²¹⁵ For instance, Epic Games spent considerable time arguing that numerous apps were, in fact, porn. Upon further review, while salacious, the proffer was devoid of merit and merely emphasized the lack of evidence on this point.

promises in its Service Level Agreement to complete a review of an app quickly: 50 percent within 24 hours and 90 percent within 48 hours. Apple claims that it is completing 96 percent of the reviews within 24 hours.²¹⁶ Anecdotal evidence from Mr. Benjamin Simon, President and CEO of Down Dog, suggests that those statistics are skewed but there was no further exploration on the topic.

The App Guidelines address issues of safety, privacy, performance, and reliability. The fact that the Guidelines are not static does not raise per se concerns because the issues are similarly non-static.²¹⁷ Evidence exists to show that the Guidelines are used in appropriate ways for appropriate purposes. *See infra* Facts § V.A.2.a.ii. For instance, Apple proactively requires, much to some developers' chagrin, measures to protect data security,²¹⁸ privacy, data collection and storage.²¹⁹ The data collection and disclosure requirements are not insignificant. They

²¹⁶ Trial Tr. (Kosmynka) 1110:10–1111:2; Trial Tr. (Federighi) 3467:11–24, 3502:23–3504:15.

²¹⁷ PX-0056A.100 (“This is a living document, and . . . may result in new rules at any time.”); PX-0056; PX-2790; Trial Tr. (Fischer) 947:6–14 (“We do change the guidelines.”); Trial Tr. (Kosmynka) 984:14–16; Trial Tr. (Schiller) 2833:15–21 (“They are modified at least yearly, sometimes more than once in a year.”).

²¹⁸ Section 1.6 states that “[a]pps should implement appropriate security measures to ensure proper handling of user information collected pursuant to the Apple [DPLA] and these Guidelines (see Guideline 5.1 for more information) and prevent its unauthorized use, disclosure, or access by third parties.” PX-2790.005.

²¹⁹ 5.1.1 Data Collection and Storage:

(i) Privacy Policies: All apps must include a link to their privacy policy in the App Store Connect metadata field and within the app in an easily accessible manner. The privacy policy must clearly and explicitly:

- Identify what data, if any, the app/service collects, how it collects that data, and all uses of that data.
- Confirm that any third party with whom an app shares user data (in compliance with these Guidelines) — such as analytics tools, advertising networks and third-party SDKs, as well as any parent, subsidiary or other related entities that will have access to user data — will provide the same or equal protection of user data as stated in the app’s privacy policy and required by these Guidelines.
- Explain its data retention/deletion policies and describe how a user can revoke consent and/or request deletion of the user’s data.

(ii) Permission Apps that collect user or usage data must secure user consent for the collection, even if such data is considered to be anonymous at the time of or immediately following collection. Paid functionality must not be dependent on or require a user to grant access to this data. Apps must also provide the customer with an easily accessible and understandable way to withdraw consent. Ensure your purpose strings clearly and completely describe your use of the data. Apps that collect data for a legitimate interest without consent by relying on the terms of the European Union’s General Data Protection Regulation (“GDPR”) or

similar statute must comply with all terms of that law. Learn more about Requesting Permission.

(iii) Data Minimization: Apps should only request access to data relevant to the core functionality of the app and should only collect and use data that is required to accomplish the relevant task. Where possible, use the out-of process picker or a share sheet rather than requesting full access to protected resources like Photos or Contacts.

(iv) Access: Apps must respect the user's permission settings and not attempt to manipulate, trick, or force people to consent to unnecessary data access. For example, apps that include the ability to post photos to a social network must not also require microphone access before allowing the user to upload photos. Where possible, provide alternative solutions for users who don't grant consent. For example, if a user declines to share Location, offer the ability to manually enter an address.

(v) Account Sign-In: If your app doesn't include significant account-based features, let people use it without a log-in. Apps may not require users to enter personal information to function, except when directly relevant to the core functionality of the app or required by law. If your core app functionality is not related to a specific social network (e.g. Facebook, via another mechanism. Pulling basic profile information, sharing to the social network, or inviting friends to use the app are not considered core app functionality. The app must also include a mechanism to revoke social network credentials and disable data access between the app and social network from within the app. An app may not store credentials or tokens to social networks off of the device and may only use such credentials or tokens to directly connect to the social network from the app itself while the app is in use.

(vi) Developers that use their apps to surreptitiously discover passwords or other private data will be removed from the Developer Program.

(vii) SafariViewController must be used to visibly present information to users; the controller may not be hidden or obscured by other views or layers. Additionally, an app may not use SafariViewController to track users without their knowledge and consent.

(viii) Apps that compile personal information from any source that is not directly from the user or without the user's explicit consent, even public databases, are not permitted on the App Store.

(ix) Apps that provide services in highly-regulated fields (such as banking and financial services, healthcare, gambling, and air travel) or that require sensitive user information should be submitted by a legal entity that provides the services, and not by an individual developer.

5.1.2 Data Use and Sharing

(i) Unless otherwise permitted by law, you may not use, transmit, or share someone's personal data without first obtaining their permission. You must provide access to information about how and where the data will be used. Data collected from apps may only be shared with third parties to improve the app or serve advertising (in compliance with the Apple Developer

require user consent, minimization, and affirmative permissions. These specifications place the customer's concerns ahead of the developers and are on the forefront of protecting user data; measures not all developers embrace, especially where they want to monetize that data. Epic Games claims that these restrictions inhibit their ability to service customer needs. Both perspectives contain a measure of truth. However, the latter is less persuasive because the servicing is an option **after** the customer consents, while the alternative would mean that data is collected and used without the customer knowing.

Tangentially related is the App Guidelines' approach to cloud-based game streaming which is discussed below with respect to market definition. *See infra* Facts § II.D.3.d. The evidence on this front post-dated the filing of this lawsuit. Thus: in September 2020, Apple modified the Guidelines to allow for the inclusion of game streaming apps, but only if each streamed app is made available as a separate app on the App Store.²²⁰ Nvidia, Microsoft, and Google sought to launch their game streaming services as native iOS apps before Apple modified its Guidelines, but all three were rejected by Apple.²²¹ None of these services chose to subsequently launch separate iOS apps—one per streamed game—as required by the new App Guidelines.²²² Craig Federighi, Apple's Senior Vice President of Software Engineering, testified that there are currently no streaming apps for game apps on the App Store.²²³ Apple allows entertainment apps such as video and music apps to stream. The restriction only applies to gaming.

Program License Agreement.). Apps that share user data without user consent or otherwise complying with data privacy laws may be removed from sale and may result in your removal from the Apple Developer Program.

(ii) Data collected for one purpose may not be repurposed without further consent unless otherwise explicitly permitted by law.

(iii) Apps should not attempt to surreptitiously build a user profile based on collected data and may not attempt, facilitate, or encourage others to identify anonymous users or reconstruct user profiles based on data collected from Apple-provided APIs or any data that you say has been collected in an “anonymized,” “aggregated,” or otherwise non-identifiable way.

²²⁰ PX-0056.180 (“Each streaming game must be submitted to the App Store as an individual app so that it has an App Store product page, appears in charts and search, has user rating and review, can be managed with ScreenTime and other parental control apps, appears on the user's device, etc.”).

²²¹ Trial Tr. (Patel) 438:24–439:15; Trial Tr. (Wright) 534:18–535:8; PX-2048.100 (“Stadia by Google has been rejected by ERB”); PX-2109.100 (“NVIDIA GeForce NOW has been rejected by ERB”).

²²² Trial Tr. (Patel) 440:25–441:4; Trial Tr. (Wright) 650:15–651:6.

²²³ Trial Tr. (Federighi) 3490:4–6.

Epic Games raises legitimate concerns regarding some of the consequences of Apple's App Guidelines and its refusal to share control of data absent customer agreement.

First, Apple does a poor job of mediating disputes between a developer and its customer. Consumers do not understand that developers have effectively no control over payment issues and or even access to consumers' information. Consequently, it can be frustrating for both sides when issues arise relating to the inability to issue and manage the legitimacy of requests for refunds.²²⁴

With respect to refunds, the DPLA gives Apple "sole discretion" to refund a full or partial amount of user purchases. When developers want to refund a customer purchase, they must contact Apple or tell the customer to contact Apple, which independently "evaluate[s] that situation."²²⁵ Thus, developers lack the ability to provide refunds and have worse customer service as the result. For example, Match Group's Operations Vice-President testified that Apple prevents Match Group from implementing its preferred refund policy or tailoring refunds to users' history, which leads to poor experiences with its products and hurts its brand.²²⁶

Moreover, because Apple lacks visibility into the transaction, it has created overly simplistic rules to issue refunds which can also increase fraud.²²⁷ For example, apps have suffered from return fraud, where the customer enjoys or resells content and then obtains a refund by providing false information. Prior to 2020, Apple did not even provide developers with information that a refund had been issued, and they had no ability to remove the refunded feature to prevent its further use. Mr. Schiller explains that Apple has this requirement because customers "want to reach out to us when they have a problem with the developer and want a refund."²²⁸ That explanation is plausible if the developer caused the issue that requires a refund. However, if the refund arises from a general customer service issue, the developer is likely better

²²⁴ Trial Tr. (Simon) 369:23–373:3.

²²⁵ PX-2621.600; Ex. Depo. 12 (Gray) 126:6–127:5, 128:2–25.

²²⁶ Ex. Depo. (Ong) 34:10–36:23, 48:17–51:06, 162:03–22; Trial Tr. (Sweeney) 91:24–92:7; Trial Tr. (Simon) 372:9–373:3; Ex. Depo. 12 (Gray) 128:8–25. Mr. Simon provides another example: Down Dog has a generally lenient refund policy that provides frequent exceptions, such as for health workers and users who liked a feature that was deprecated. Apple's approach is stricter and more uniform, which prevents Down Dog from implementing its preferred policy. Trial Tr. (Simon) 370:2–373:17.

²²⁷ Apple employees have acknowledged that this "causes some customers to be treated unfairly while also allowing for fraudulent claims to be refunded." PX-2189.100.

²²⁸ Trial Tr. (Schiller) 2798:24–2799:11.

suited to address the issue. Although Apple introduced new tools to address this issue in 2020, it did so only after years of complaints.²²⁹

Apple argues that its policies protect consumers against fraudulent attacks. The data is far from clear. What is certain is Apple's decision prohibits information from flowing directly to the customer so that customers can make these choices themselves.

Second, Epic Games argues that the lack of direct connection to consumers impacts a developer's ability to obtain key analytics, such as "real-time reporting about its customers' spending behavior." While Epic Games may profit from having "real-time reporting" about an individual spending behavior, ample evidence shows that Epic Games already reaps immense profits from impulse purchasing. Little societal value exists in allowing plaintiff to capitalize on more customer data to exploit customer habits.

Other examples, however, seem more legitimate such as Match Group's desire to obtain the information to run registered sex offender checks and age verification. Mr. Ong attributes this fact to a "one-size-fits-all" approach that prevents it from building safety features "that are relevant to [its] users." In truth, the evidence is more mixed with a split among developers regarding the amount and usefulness of certain information with respect to analytics.²³⁰ As noted, the issue is double-edged as it impacts user privacy.

5. App Store Operating Margins

Plaintiff's expert, Ned Barnes, through both reverse engineering and review of documents from Tim Cook's files, calculated operating margins to be over 75% for both fiscal years 2018 and 2019.²³¹ Mr. Barnes explained:

Operating margin measures the profitability of a business or business segment by calculating the excess of revenue over costs. It is defined as net revenue (or sales) minus both (i) costs of goods sold ("COGS") and (ii) operating expenses ("OPEX") such as selling, general and administrative expenses, and research and development ("R&D") expenses. Operating margin percentage is calculated by dividing the nominal amount of operating margin dollars by the nominal amount of net revenue.²³²

²²⁹ Ex. Depo. 12 (Gray) 146:8–147:20, 150:15–151:05; Trial Tr. (Schiller) 2799:17–2800:11; PX-2062 (complaints in 2018).

²³⁰ Ex. Depo. (Ong) 169:24–173:19; Trial Tr. (Sweeney) 128:22–24; PX-2362.300; Ex. Expert 8 (Schmalensee) ¶ 150; Ex. Expert 11 (Rubin) ¶ 127; DX-3922.106.

²³¹ Ex. Expert 2 (Barnes) ¶¶ 2, 4, 5.

²³² *Id.*

In addition, Mr. Barnes reviewed internal documents reflecting profit and loss (“P&L”) statements specific to the App Store and presented to Apple executives. These documents support Mr. Barnes’ independent conclusions.²³³ Other documents indicate that at least by fiscal year 2013, the margin percentages exceeded 72%.²³⁴

Apple counters that it does not maintain profit and loss statements for individual divisions and that Mr. Barnes’ analysis is inaccurate. The Court disagrees with the latter. Mr. Barnes made appropriate adjustments based on sound economic principles to reach his conclusions. Apple’s protestations to the contrary, notwithstanding the evidence, shows that Apple has calculated a fully burdened operating margin for the App Store as part of their normal business operations. Apple’s financial planning and analysis team are tracking revenues, fixed and variable operating costs, and allocation of IT, Research & Development, and corporate overheads to an App Store P&L statement. The team’s calculation was largely consistent with that of Mr. Barnes. Although there are multiple ways to account for shared costs in a business unit, the consistency between Mr. Barnes’ analysis and Apple’s own internal documents suggest that Mr. Barnes’ analysis is a reasonable assessment of the App Store’s operating margin.

However, when Mr. Barnes extended the analysis to compare his findings to other online stores, he chose poorly. Mr. Barnes analyzed the operating margins for the following online stores for the years spanning 2013 to 2019, finding operating margin percentages ranging approximately as follows: eBay (20-30 percent), Etsy (-3.2 to 12 percent), Alibaba (29-50 percent), MercadoLibre (-6.7 to 32 percent), and Rakuten (8-17 percent).²³⁵ All of these pale in comparison to Apple, but none are driven by the same digital transactions as exist here.

While Mr. Barnes’ choice is understandable,²³⁶ he did not compare Apple with the Google Play app store, Sony PlayStation Store, Microsoft Store, Samsung Galaxy Store, and Nintendo eShop.²³⁷ Mr. Barnes notes that these entities claim, like Apple, that they do not report sufficiently separate financial results for their app store activities. It is not clear whether sufficient public information exists to reverse engineer for these companies in the same way he reverse-engineered for Apple.

²³³ *Id.*

²³⁴ *Id.* ¶ 9.

²³⁵ *Id.* ¶ 22.

²³⁶ Mr. Barnes used the following “criteria” to choose the comparators: “online marketplace firms” that “(i) primarily generate online marketplace revenues from commissions and fees earned from transactions involving third-party merchants rather than as a direct seller of goods; (ii) publicly reported financial statements; (iii) at least five years of available financial statements; (iv) marketplace activities sufficiently distinguishable in operating results; and (v) profitable marketplace operations in at least one year of the last five years.” *Id.* ¶ 23.

²³⁷ *Id.* ¶ 24.

Notwithstanding Mr. Barnes' choice to compare the App Store's operating margins to those other online stores, under any normative measure, the record supports a finding that Apple's operating margins tied to the App Store are extraordinarily high. Apple did nothing to suggest operating margins over 70% would not be viewed as such. As discussed below, the record also shows that the bulk of the revenues generating those margins come from in-app purchases in gaming apps.

6. App Store Revenues From Mobile Gaming

As highlighted at the outset of this Order, pivotal evidence in this case reveals that gaming transactions are driving the App Store. Given the critical nature of this evidence, the Court unseals the following evidence from 2017 and sufficient evidence from the following years to make key findings. The specifics are referenced in the footnotes below and sealed to the general public. Suffice it to say, the trends increase in an upwards trajectory.

Games have played an integral part of the App Store since at least 2016. In 2016 for instance, despite game apps only accounting for approximately 33% of all app downloads, **game apps nonetheless accounted for 81% of all app store billings that year.**²³⁸ Further, based on Apple's internal records, 2017 gaming revenues overall accounted for 76% of Apple's App Store revenues. These commissions are substantially higher than average due to the prevalent and lucrative business model employed by most game developers. Specifically, game apps are disproportionately likely to use in-app purchases for monetization.²³⁹

Importantly, spending on the consumer side is also primarily concentrated on a narrow subset of consumers: namely, exorbitantly high spending gamers.²⁴⁰ In the third quarter of 2017, high spenders, accounting for less than half a percent of all Apple accounts, spent a "vast majority of their spend[] in games via IAP" and generated 53.7% of all App Store billings for the quarter, paying in excess of \$450 each. In that same quarter, medium spenders (\$15-\$450/quarter) and low spenders (<\$15/quarter), constituting 7.4% and 10.8% of all Apple accounts, accounted for 41.5% and 4.9% of all App Store billing, respectively. The remaining

²³⁸ DX-4399.008.

²³⁹ Ex. Expert 6 (Hitt) ¶¶ 117, 120–124; DX-4178.006; PX-0059.007; DX-0608.012 (2019); Trial Tr. (Schmid) 3226:8. The actual numbers can be found in the sealed exhibits and need not be repeated in this Order.

²⁴⁰ From what little evidence there is in the record, these consumers frankly appear to be engaging in impulse purchasing and both parties' profits from this sector are significant. This specific conduct is outside the scope of this antitrust action, but the Court nonetheless notes it as an area worthy of attention.

81.4% of all Apple accounts spent nothing and account for zero percent of the App Store billings for the quarter.²⁴¹ The trend has largely continued to the present.²⁴²

This trend is also mirrored within the App Store’s games billings. Indeed, Apple has recognized that “[g]ame spend is highly concentrated” among certain gaming consumers. Similar to the above statistics, 6% of App Store gaming customers in 2017 accounted for 88% of all App Store game billings and were gamers who spent in excess of \$750 annually. Breaking down this 6% population:

- High spenders, accounting for 1% of iOS gamers, generated 64% of game billings in the App Store, spending on average \$2,694 annually;
- Medium-high spenders, accounting for 3% of iOS gamers, generated 20% of game billings in the App Store, spending on average \$373 annually; and
- Medium spenders, accounting for 2% of iOS gamers, generated 4% of game billings in the App Store, spending on average \$104 annually.

Indeed, in strategizing on the development of the App Store and Apple’s gaming business, Apple noted that it “need[s] to primarily consider how [its] service[s] would impact engagement and spend of this 6%.”²⁴³ Thus, in most economic ways, and in particular with respect to the challenged conduct, the App Store is primarily a *game* store and secondarily an “every other” app store.

II. REVIEW OF PARTIES’ PROPOSED PRODUCT MARKET AND FINDING

The Court reviews the factual basis for each of the three proffered product markets. Epic Games offers two aftermarkets, namely (i) an aftermarket for the distribution of iOS apps and (ii) an aftermarket for payment processing for iOS apps. The foremarket for each hinges on the existence of a market for operating systems for smartphones.²⁴⁴ Apple proposes a market for digital games transactions. The Court outlines the evidence for each in turn.

²⁴¹ See DX-4399.019–.020. Even within this general spend data, Apple’s presentation suggests slides later that the high level of spend derives primarily from gaming apps. Indeed, a few pages later, Apple notes the top grossing apps for 2016, and states: “Not only are these all games, but they’re freemium games, meaning they’re free to download, and you spend money using In-App Purchases to get more features or levels.” DX-4399.024.

²⁴² See PX-2302.046–.047. Coincidentally, the percentage of consumers that pay nothing almost mirrors the same percentage of free apps available in the App Store.

²⁴³ See PX-2176.176. The Court notes that the limited evidence in the record as to Google Play show that it too is similarly built on gaming transactions and a narrow subset of high spending gaming consumers and game developers. See DX-3913.004–.013.

²⁴⁴ A “foremarket” is “a market in which there is competition for a long-lasting product” from which “demand for a second product” derives. An “aftermarket” is the “market for the

A. Epic Games: Facts Relevant to Foremarket for Apple's Own iOS

Before reviewing each of the proposed markets, the Court considers whether Apple's operating system should be viewed as a foremarket. The Court finds that it should not.

As a threshold matter, Apple urges the Court to disregard Epic Games' market definition on pleading grounds. Said differently, Epic Games did not explicitly use the terms "foremarket" and "aftermarket" in its complaint to outline its market theories. The Court agrees that Epic Games could have been more clear. Ultimately though, Apple's argument elevates form over substance. Apple was on notice and litigated the matter.²⁴⁵ Courts prefer to rule on the merits of claims rather than disregard on procedural grounds.

In terms of substance, the Court agrees with Dr. Schmalensee that plaintiff's identification of a "foremarket" for Apple's own operating system is "artificial." The proposed foremarket is entirely litigation driven, misconceived, and bears little relationship to the reality of the marketplace.²⁴⁶ Quite simply, it is illogical to argue that there is a market for something that is not licensed or sold to anyone.²⁴⁷ Competition exists for smartphones which are more than just the operating system.²⁴⁸ Features such as battery life, durability, ease of use, cameras, and performance factor into the market.²⁴⁹ Consumers should be able to choose between the type of ecosystems and antitrust law should not artificially eliminate them.²⁵⁰ In essence, Epic Games ignores these marketplace realities because, as it presumably knows, Apple does not have market

second product." Ex. Expert 1 (Evans) ¶ 40. As an example, razors are the foremarket for disposable razor blades which is the aftermarket. *Id.*

²⁴⁵ See Compl. ¶¶ 156–183. The Court also addressed this issue in its preliminary injunction opinion, *Epic Games, Inc. v. Apple Inc.*, 493 F. Supp. 3d 817, 835–38 (N.D. Cal. 2020).

²⁴⁶ Ex. Expert 8 (Schmalensee) ¶¶ 6, 61.

²⁴⁷ Trial Tr. (Schiller) 2723:18–2725:2.

²⁴⁸ *Id.* 2725:9–21.

²⁴⁹ DX-4089.010, .035, .037.

²⁵⁰ See, e.g., Trial Tr. (Cook) 3932:21–3933:6, 3937:12–20, 3987:18–25; Trial Tr. (Federighi) 3363:17–20, 3392:12–20. Mr. Sweeney, an iPhone user himself, admitted that he found Apple's approach to privacy and customer data security superior to Google's approach to customer privacy and customer data. Trial Tr. (Sweeney) 302:22–303:4. Mr. Sweeney further agreed that "if Apple were to compromise those fundamental differentiators,"—which the Court notes are more than the operating system—Apple may lose a competitive advantage over Android, depending on those changes. *Id.* 303:11–16; Trial Tr. (Athey) 1823:2–9 (agreeing that "privacy and security are competitive differentiators for Apple").

power in the smartphone market. Rather Apple only has 15 percent of global market share in 2020.²⁵¹

B. Epic Games: iOS App Distribution Aftermarket

Given the Court’s rejection of the foremarket theory, the aftermarket theory fails as it is tethered to the foremarket. Although the Court rejects plaintiff’s foremarket construct, it nonetheless discusses additional factual problems with the aftermarket theory given plaintiff’s focus on those issues. In effect, plaintiff really urges a single-brand analysis because Apple’s exclusionary conduct impacts Epic Games’ ability to compete in that space, both with respect to gaming and non-gaming apps.

Plaintiff claims that an aftermarket exists for four reasons. Each reason is tied to the known legal framework in which antitrust cases are litigated and which is discussed in the legal section below. That said, the four reasons are: One, the foremarket and aftermarket are related but two separate markets. Two, there are restraints in the aftermarket which are not in the foremarket. Three, the source of Apple’s market power stems from its walled garden; not because of separate contractual agreements with consumers. Four, competition in the initial market does not discipline Apple’s market in the proposed aftermarket.²⁵²

In terms of the trial record, the factual disputes reside in plaintiff’s fourth reason which the Court addresses in this part of the Order. More specifically, the Court addresses Epic Games’ evidence of (1) switching costs and alleged lock-in and (2) substitution.²⁵³ The Court also considers Epic Games’ argument as to whether the Court should consider all apps or only gaming apps.

1. Evidence of Switching Costs and Alleged “Lock-in”

Beginning with the switching costs²⁵⁴ and alleged “lock-in,” the Court considers Epic Games’ proffer based on Apple’s internal documents, expert testimony, and consumer knowledge, as well as Apple’s rebuttal evidence.²⁵⁵

²⁵¹ Ex. Expert 8 (Schmalensee) ¶ 64.

²⁵² Epic Games COL ¶¶ 84–93.

²⁵³ Epic Games FOF ¶ 218; Trial Tr. (Evans) 1507:10–1510–11, 1512:3–22.

²⁵⁴ Switching costs are “obstacles of moving from one product to another product.” Trial Tr. (Evans) 1494:23–24. In other words, it is the costs born by leaving one platform to go to a different platform.

²⁵⁵ Apple FOF ¶ 399; see Trial Tr. (Schmalensee) 1930:3–14; Ex. Expert 6 (Hitt) ¶ 211.

a. Apple Documents

Starting with Apple documents, Epic Games cites emails showing that Apple executives were aware of the impact of switching costs from iOS to Android. For instance, a 2013 email from Eddy Cue to Tim Cook and Phil Schiller recommends using iTunes discounts (as opposed to device discounts) because “[g]etting customers using our stores . . . is one of the best things we can do to get people hooked to the ecosystem.” The email asks: “Who’s going to buy a Samsung phone if they have apps movies, etc. already purchased? They now need to spend hundreds more to get where they are today.”²⁵⁶

Next, is an email chain from March 2016 illustrating the debate around iMessage.²⁵⁷ In the email, a customer describes his experience between Google and Apple devices and provides a laundry list to both Google and Apple of the pros and the cons of each device. In advising Google of his decision to remain with Apple, he concluded with the note that “the #1 most difficult [reason] to leave the Apple universe app is iMessage” which led him to use a combination of Facebook, WeChat, WhatsApp and Slack. For him, “iMessage amounts to serious lock-in.” In forwarding the email to Apple executives, they were internally advised “FYI – we hear this a lot.” Phil Schiller then advised Tim Cook that “moving iMessage to Android will hurt us more than help us”²⁵⁸ Later, in October 2016, Mr. Schiller circulated to other Apple executives a Verge article entitled “iMessage is the glue that keeps me stuck to the

²⁵⁶ PX-0404.

²⁵⁷ iMessage is Apple’s text messaging service that shows a blue bubble for texts sent from iOS devices (and allows for additional functionality) while displaying a green bubble for non-iOS devices without the same functionality.

²⁵⁸ PX-0416.

iPhone.”²⁵⁹ Despite hours on the stand, plaintiff never explored this topic with Mr. Schiller other than to confirm receipt of the third-party emails.²⁶⁰

On balance, the Court reads the emails to suggest that Apple sought to compete by distinguishing their product, and in the process, making its platforms “stickier.” That, however, is not necessarily nefarious. Every business seeks to decrease switching away from its products. Epic Games’ executives, for instance, used the word “lock-in” to refer to price cuts that make it easier for users to play *Fortnite* in a hard economy. Here, the features that create lock-in also make Apple’s products more attractive. Whether the conduct is procompetitive depends on other factors, including timing and whether the stickiness is at least partly tied to product attractiveness which can then decrease if the products become less attractive (for instance, through higher game prices).²⁶¹ This evidence is not persuasive of switching costs on its own.

b. Dr. Susan Athey

Next, Epic Games relies on expert testimony by Dr. Susan Athey who provides high-level, and largely theoretical, testimony about various costs incurred during switching from iOS to Android devices.²⁶² Unfortunately, Dr. Athey makes no effort to determine from consumers themselves whether they are motivated by loyalty and product satisfaction or because of switching costs. She conducted no original surveys. Nor does she attempt to measure the switching costs and analyze literature about their magnitude. Indeed, Dr. Athey does not cite *any evidence* beyond a news article, a European journal, and a biography of Steve Jobs. Nor did she

²⁵⁹ Again, the statements themselves are hearsay and are considered for a limited purpose of state of mind and not for whether iMessage actually creates lock-in for the customer base as text messages can be shared between iOS devices and Android. *See* PX-0079 (third-party Goldman Sachs Group, Inc. analysis); PX-2356; Trial Tr. (Schiller) 2981:6–2982:25.

Epic Games also cites other documents, but the import of those documents is far less clear. For instance, a 2019 email from Mr. Federighi discusses eliminating user-entered passwords in favor of Sign in with Apple, which would make the platform more “sticky.” PX-0842. However, the context of the email concerns protecting users from spam, and it immediately notes factors that undermine that stickiness, such as “heavy” use of Chrome. *Id.*; *see also* Trial Tr. (Schiller) 3169:7–22 (explaining desire to protect users from spam). Another document shows Steve Jobs discussing tying different products together to “lock” customers into the ecosystem. PX-0892. Again, that is indistinguishable from simply making the ecosystem more attractive. *See* Trial Tr. (Schiller) 2864:7–15.

²⁶⁰ PX-0416; Trial Tr. (Schiller) 3173:11–16, 3174:4–16.

²⁶¹ Trial Tr. (Weissinger) 1433:19–1434:16; *see, e.g.*, Trial Tr. (Cook) 3870:16–21; Trial Tr. (Schiller) 2864:16–19. Evidence shows that switching costs have decreased since the early 2010’s through increased cross-platform functionality and “middleware,” a term which does not exist in economic literature and which Dr. Athey created. Trial Tr. (Athey) 1782:7–1783:1, 1805:5–1806:22, 1809:17–1810:11.

²⁶² *See generally* Ex. Expert 4 (Athey); Ex. Expert 1 (Evans).

analyze additional evidence or perform original analysis when forming her opinion. As such, the Court is left entirely in the dark about the *magnitude* of the switching costs and whether they present a meaningful barrier to switching *in practice*. There is simply no independent data to show that switching costs create meaningful lock-in.²⁶³

²⁶³ Trial Tr. (Athey) 1777:18–24, 1794:12–1795:3, 1813:22–1814:11, 1815:11–1816:2, 1870:10–15.

Apple moves to strike Dr. Athey’s opinions under Federal Rule of Evidence 702(b). Dkt. No. 721. Epic Games responds that Apple waived its objections by stipulating to the admission of expert “written direct testimony” (Dkt. No. 510) and “unadmitted materials within the scope of Rule 703” relied on by the experts (Dkt. No. 635). Epic Games further contends that Dr. Athey disclosed her opinions in her report and that she may testify “solely or primarily on experience” if she “explain[s] how that experience leads to the conclusions reached, why that experience is a sufficient basis for the opinion, and how that experience is reliable applied to the facts.” Fed. R. Evid. 702 advisory committee note to 2000 Amendments (“Adv. Committee Note”).

While the Court does not strike the opinion, the Court agrees with Apple that the opinion’s basis is weak. Epic Games conflates the requirements of Rule 703, Rule 702, and discovery. Rule 702(b) asks “whether the expert considered enough information to make the proffered opinion reliable,” while Rule 703 asks whether the data considered itself is “of a type that is reliable.” See 29 Charles Alan Wright & Arthur R. Miller, *Federal Practice & Procedure* § 6268 (2d ed.). Federal Rule of Civil Procedure 26(a)(2)(B)(ii) further requires that an expert set forth “the facts or data considered by the [expert] in forming” the opinions in her report.

Here, Dr. Athey does not explain how her experience provides a *sufficient* basis for her sweeping conclusions. This is not a handwriting case where an expert opines that two writings are the same based on experience. It is a complex antitrust case that requires consideration of economic data. Unexplained academic and industry experience simply does not provide sufficient basis to draw reliable conclusions. Moreover, to the extent that Epic Games asks the Court to rely on Dr. Athey’s general research, such research should have been disclosed in the report so that the Court and opposing party could evaluate it.

Nevertheless, the Court recognizes that the procedural posture of this case was unique. The Court ordered that no *Daubert* motions be made in advance of the bench trial given the expedited schedule and the fact that the Court had to read and review the submission in any event. Context was helpful. That said, many issues were litigated during the course of the bench trial and Apple did stipulate to the admission of Dr. Athey’s testimony. Dr. Athey apparently relied on additional sources in her expert report (which she did not cite in her written direct testimony). The Court considers her opinions, but as discussed, given the lack of data, the Court does not give those opinions much weight.

While the Court finds Dr. Athey well-intentioned, the lack of data upon which she bases her opinion leaves the Court with little objective reason to accept her theory.²⁶⁴ Moreover, the market is responding, *i.e.*, both Google and Apple are creating easier paths to convert customers from the other and deal with the switching costs.²⁶⁵ The Court can agree that it takes time to find and reinstall apps or find substitute apps; to learn a new operating system; and to reconfigure app settings. It is further apparent that one may need to repurchase phone accessories. That said, by ignoring the issue of customer satisfaction, Epic Games has failed to convince. The Court warned the parties in advance that actual data was an important consideration.

Accordingly, the expert testimony from Dr. Athey is wholly lacking in an evidentiary basis and does not show *substantial* switching costs enough to create user lock-in for iOS devices.

c. Consumer Knowledge and Post Purchase Policy Changes

From a broad perspective, Epic Games did not conduct any analysis of whether consumers know that they are buying into a walled garden. Apple argues that its business is successful precisely because of the reliability and security creating the walled garden on the iOS devices and on which it competes (discussed below). Without a consumer survey, there is no evidence that consumers are *unaware* of walled garden before purchasing the smartphone. Thus, there is no “bait-and-switch.”

Plaintiff strains on the policy-change argument. Here Epic Games argues that Apple has changed its stated policy with respect to the commissions and thereby “lock-in” consumers and developers. The assertion is based upon two comments. The first occurred in 2008 by Steve Jobs when the App Store was launched by stating that the 30% commission was intended to “pay for running the App Store” and that Apple would be “giving all the money to the developers.” The second occurred in 2011 when Phil Schiller noted in an internal email that “once we are making over \$1B a year in profit from the App Store, is that enough to then think about a model where we ratchet down from 70/30 to 75/25 or even 80/20 if we can maintain a \$1B a year run rate?”²⁶⁶ Plaintiff claims the 30% commission rate constitutes a change in policy as compared against those two comments.

Plaintiff’s argument is not grounded in legal principles. The two noted informal statements do not create a policy, especially in light of a written contract, much less one which shows the 30% is a change. However, the Court does agree that the comments confirm that the 30% is not tied to anything in particular and can be changed. Moreover, it shows that Apple used other provisions to hide information on those commission rates from the consumers,

²⁶⁴ Last, Dr. Athey describes “mixing-and-matching” costs that users incur when trying to use devices from different ecosystems together. Dr. Evans reiterates some of this analysis in his testimony, but again, the data is weak. Ex. Expert 4 (Athey) ¶¶ 20–23; Ex. Expert 1 (Evans) ¶¶ 83–88; Trial Tr. (Evans) 1495:5–1497:3; Trial Tr. (Athey) 1755:6–1763:24.

²⁶⁵ DX-3084A.022; Trial Tr. (Cook) 3867:12–3870:1, 3886:19–3887:5; DX-5573.

²⁶⁶ PX-0880.021, .027; PX-0417.001.

presumably to hide the profitability of the transactions, namely the use of anti-steering provisions. Without information, consumers cannot have a full understanding of costs.²⁶⁷

d. Apple's Rebuttal Evidence

Apple introduces rebuttal evidence that low switching stems from satisfaction with Apple devices and services.

First, Apple emphasizes that consumers do switch from iOS to Android. Although the timeline for switching smartphones is longer than a few years, as many as 26% of smartphone users, including 7% of iPhone users, purchase a cellphone with a different operating system each cycle. Industry surveys suggest that iOS users are not per se “closed off” to considering Android when making decisions.²⁶⁸

Second, Apple cites consumer surveys that the lack of switching is due to consumer satisfaction with iOS. A Google survey shows that 64% of iOS users would not switch to Android simply because they “prefer iOS,” which is the number one reason for not switching. Another survey shows that users who *do* switch from Android to iOS do so because they liked the speed and reliability provided by iPhones. Other surveys show high rates of satisfaction with iOS devices.²⁶⁹ This evidence is significant not only because it was not litigation driven, but because Epic Games does not provide its own consumers surveys to show that users fail to switch even when they are dissatisfied with app price, quality, or availability. Thus, Apple’s evidence strongly suggests that low switching between operating systems stems from overall satisfaction with existing devices, rather any “lock-in.”

Comparing and weighing the parties’ proffers, the Court finds that Epic Games failed to prove that users are “locked-in” or would not switch to Android devices in response to a significant change in game app prices, availability, or quality.²⁷⁰

²⁶⁷ Trial. Tr. (Evans) 1509:11–17; Ex. Expert 1 (Evans) ¶ 118.iv. The Court rejects the notion that Apple must affirmatively give consumers an estimate of the “amount of money a consumer spends on apps over the lifecycle of an iPhone,” especially given that consumers appear to be in different categories of spending. *See* Epic Games FOF ¶ 221.a. That is different from enforcing silence regarding commission costs.

²⁶⁸ DX-4310.012; Ex. Expert 6 (Hitt) ¶ 209; DX-3598.027.

²⁶⁹ DX-3598.027; DX-3441.006–.007. Of course, the Apple survey cuts both ways. Consumers who switched from Android to iOS did so for hardware reasons, such “speed,” “quality device construction,” and “battery”—not app quality, price, or availability. This reinforces Dr. Evans’ point that apps are a secondary consideration when purchasing a smartphone and would not lead to switching by themselves. *See also* DX-4312.043; DX-4495.044.

²⁷⁰ As a corollary, without proof of customers lock-in, the notion that developers would not switch to maintain that customer base is by definition also not proved.

2. Substitutes

In terms of substitutes given the business realities of the market, the parties' arguments hinge on their own respective definitions of the market. Epic Games spends little time on this issue with respect to its definition. For Epic Games, there is an aftermarket for iOS app distribution for which there is no substitute as it occupies the entire field.²⁷¹

Given Apple's proposed market of all digital game transactions, Apple argues that all the other game transaction platforms are substitute platforms for the App Store. Those platforms include ones accessed through all devices: mobile, tablets, consoles, and PCs. Epic Games rebuts this claim. It makes two arguments. One, because developers create apps for more than one platform, they do not view them as substitutes to reach the same consumers. Two, economic and survey evidence show a lack of substitution. The Court begins with Epic Games' arguments.

a. Single Homing and Fortnite Data

No one disputes that when developers create an app for Android versus iOS, they use a different SDK but much of the code can be ported across platforms. Using technical language, users may "single home" at a single platform while developers "multi home" across platforms. As the result, developers compete for single-homing users in a winner-take-all market and cannot afford to forego particular platforms without losing those other customers. The Court agrees that in the smartphone context, consumers typically "single home."²⁷²

In terms of user options on smartphones, gaming transactions on Android appear similar if not identical to gaming transactions on iOS. Most popular mobile games are available on both Android and iOS, with similar functionality. Developer support services are also similar.²⁷³ Further, a significant difference in game transaction price or availability does not exist between iOS and Android. The evidence shows that very few consumers own both Android and iOS devices, and that currently, very low switching rates exist, with only about 2% of iPhone users switching to Android each year.²⁷⁴ These results are not particularly surprising if those devices provide essentially the same experience.

Whether that extends beyond the smartphone context is debatable. Thus, to establish this extension, Epic Games relies on the "natural experiment" provided by *Fortnite*'s removal in the wake of the Project Liberty.

²⁷¹ Epic Games FOF ¶¶ 179–180.

²⁷² Ex. Expert 1 (Evans) ¶¶ 48, 89.

²⁷³ *Id.* ¶¶ 74; Ex. Expert 6 (Hitt) ¶¶ 28; DX-4759.001; Trial Tr. (Simon) 390:5–19; Trial Tr. (Grant) 669:22–24, 733:7–13; Trial Tr. (Fischer) 873:3–8.

²⁷⁴ Dr. Hitt testified that up to 26% of iOS users switch to Android at the end of each upgrade cycle. Ex. Expert 6 (Hitt) ¶ 209. He agreed, however, that this creates no more than three to four percent change in the installed base each year. Trial Tr. (Hitt) 2162:12–2163:15.

The experts do not appear to disagree that the removal of *Fortnite* is a “degradation in quality” of the App Store and iOS devices in general.²⁷⁵ Dr. Evans thus opines that *Fortnite*’s removal provides an empirical study of user substitution in response to changes in quality in iOS and analyzed the data for ten weeks after its removal. Given the loyal *Fortnite* following, Dr. Evans evaluated iOS-only users. For this group, he found they only shifted 16.7% of game play minutes to other platforms and 30.7% of spending to other platforms. Applying this substitution rate to Epic Games’ profit margins, Dr. Evans concludes that similar developers would not find it profitable to abandon the iOS platform because they could not make up the spending on other platforms, even if Apple raised its commission.²⁷⁶

First, Dr. Evans’ decision to limit his analysis to iOS-only *Fortnite* players is questionable because it ignores other market evidence that iOS players engaged in substitution before and after the hotfix. Dr. Evans cites evidence that 90.9% of iOS *Fortnite* players play only on iOS. This is consistent with general statistics that 82.7% of *Fortnite* players play on a single platform. That said, Dr. Hitt’s data shows that 35.9% of iOS *Fortnite* players multi-home. This is consistent with evidence that between 32% and 52% of all *Fortnite* players multi-home. Moreover, Dr. Hitt cites evidence that the iOS *multi-homers* account for 85% of *Fortnite* revenue from iOS in the first half of 2020, which makes them particularly important.

Dr. Evans’ focus, however, ignores this important group which reveals important insight: players who access *Fortnite* on iOS still spend the overwhelming majority of their *Fortnite* time and money on non-iOS platforms.²⁷⁷ By limiting his analysis to players who use iOS as the *primary Fortnite* platform (*i.e.*, the platform where they spend most of their playtime and spending), the Court finds Dr. Evans likely underestimates overall substitution.²⁷⁸

²⁷⁵ Ex. Expert 1 (Evans) ¶ 127. As such, Dr. Evans opines that it supports use of a “SSNIP” test commonly used to test monopoly power. *Id.* ¶ 133; Trial Tr. (Evans) 1528:12–1530:1, 1533:1–1534:8. The Court discusses the SSNIP test and its applicability below.

²⁷⁶ See Ex. Expert 1 (Evans) ¶¶ 124–134; PX-1080; Trial Tr. (Evans) 1521:2–1535:7. Dr. Evans opines that this is an “upper bound” of substitution because most other mobile games, unlike *Fortnite*, lack cross-wallet, cross-play, and other features that make it easy for *Fortnite* players to switch devices. Dr. Evans further lowers the substitution estimate after accounting for the “natural cross-progression” from iOS to “more serious” gaming on PCs and consoles. However, as Dr. Hitt correctly notes, this constitutes substitution even if it is not directly responsive to the quality decrease. Ex. Expert 1 (Evans) ¶ 129; Trial Tr. (Evans) 1527:10–14; Ex. Expert 6 (Hitt) ¶ 252.

²⁷⁷ Specifically, *Fortnite* players with iOS accounts spend almost 90% of their play time and 87% of their spending outside of iOS. Ex. Expert 6 (Hitt) ¶ 73. Another explanation for the different conclusions rests on Dr. Evans’ use of sampling: Dr. Hitt testified that Dr. Evans’ confidence intervals are well in line with his own estimates. Trial Tr. (Hitt) 2145:10–22.

²⁷⁸ Ex. Expert 1 (Evans) ¶ 126; PX-1054; Ex. Expert 6 (Hitt) ¶¶ 68–75, 94, 249–50; DX-4767. Of course, the existence of iOS-only players who do not substitute may suggest a subset

Second, and ironically, the *Fortnite* data *does* show substitution. Dr. Hitt, analyzing the same data, found that 22% to 38% of strict iOS-only—users who never accessed *Fortnite* on a non-iOS platform before—shifted their game time and spending to other platforms after the iOS hotfix. Significantly, after accounting for iOS users who already played on other platforms (of whom up to half increased their spending on other platforms), Dr. Hitt shows that Epic Games retained 81% to 88% of its iOS player revenue after Project Liberty. Dr. Evans criticizes this conclusion, arguing that it does not show substitution but rather shows that non-iOS spenders continue to spend outside iOS. The experts agree that Epic Games retained up to half of its iOS-only user revenue.²⁷⁹

In conclusion, the *Fortnite* data is basically mixed. Up to a third of iOS *Fortnite* users already play on other devices, which makes their ability to substitute a given. Another 20% undertook at least some substitution after *Fortnite* removal, including by accessing devices on which they previously played *Fortnite*. Although this was not enough to make up Epic Games' losses, the Court finds the time period of substitution significant: Dr. Evans analyzed substitution for only the ten weeks following *Fortnite*'s removal. The Court finds it likely that a longer analysis would show greater substitution both because of the typical upgrade cycle for expensive devices (longer than ten weeks) and because of the timing of this Court's preliminary injunction order (immediately after the ten-week period). In particular, users may have waited to see whether this Court would reinstate *Fortnite* to the App Store before making a different purchasing decision or waited for Season 15 for which we have no data. Moreover, because *Fortnite* was removed simultaneously from Google Play and the iOS App Store, the experiment does not account for substitution between iOS and Android.

For all of these reasons, the *Fortnite* data does not reliably show lack of user substitution among game transactions on different devices.

b. Dr. Rossi and Dr. Evans

Last, Epic Games proffers a survey performed by Dr. Rossi and Dr. Evans' use thereof.

Beginning with the survey, Dr. Rossi asked iPhone and iPad users whether they would change their spending if iOS in-app purchases were slightly more expensive. Specifically, Dr. Rossi asked respondents to think about their in-app purchases from the App Store in the last thirty days and imagine that the spending was five percent higher. 81% of the respondents giving definite answers indicated that they would not have changed their purchases. The remainder indicated opposite with only 1.3% switching to non-iOS phones or tablets. Dr. Rossi

of the market for whom iOS *Fortnite* play is key. Trial Tr. (Evans) 2371:1–14. However, Epic Games did not define a market with respect to these users but for all iOS game transaction users.

²⁷⁹ Trial Tr. (Hitt) 2142:24–2145:5; Ex. Expert 6 (Hitt) ¶¶ 97, 251; DX-4824; Trial Tr. (Evans) 2371:22–2376:6; Ex. Expert 16 (Evans) ¶¶ 26, 29–31.

and Dr. Evans use this data to conclude that consumer demand for iOS app transactions is relatively inelastic.²⁸⁰

Dr. Rossi's survey suffers from several methodological flaws, including the language and timing of the survey. First, the formulation of the questions was confusing. The questions did not convey that the price changes were intended to be both in future and permanent (or nontransient). Instead, his approach was explicitly backward looking. He failed to use simple phrases like "in the future" which had been considered. He claims his final, and untested language, was intended to be more clear.²⁸¹ A comparison of the language demonstrates otherwise. By failing to make the distinction with the future, Dr. Rossi also injected the notion of customer satisfaction into the survey which likely impacted the result.²⁸² His justification that he conducted "structured pretests" is manufactured and not recognized in the industry.²⁸³

Further, given that the survey was conducted on January 20, 2021 and asked about spending in the "last 30 days," Dr. Rossi failed to account for holiday spending which is likely to be idiosyncratic. Holiday spending includes sales and price changes before, during, and after the holidays, and Dr. Rossi admitted that the results may vary for "for some products."

Next, the survey concerned all app purchases, not just game transactions, and ignored plaintiff's key demographic. Dr. Evans expressly testified that in-app transactions are not part of his proposed product markets. Yet those are the only purchases which Dr. Rossi tested.²⁸⁴ Dr. Rossi also claims he did not want to include minors because he would have to obtain parental approval, but that proved not to be a problem for Dr. Hanssens, Apple's expert, who did survey minors.²⁸⁵ Given the magnitude of the issues before the Court, Dr. Rossi choices did not

²⁸⁰ "Relatively inelastic" is not formally inelastic (which requires an elasticity less than -1), but it is less elastic than comparable markets. Trial Tr. (Evans) 1650:8–1651:15; Ex. Expert 3 (Rossi) ¶¶ 4–14; PX-1089; Ex. Expert 1 (Evans) ¶¶ 136–138.

²⁸¹ Compare versions in PX-1920; Trial Tr. (Rossi) 2512:15–2513:13, 2526:5–10, 2532:13–21, 2528:12–2529:2; Ex. Expert 7 (Lafontaine) ¶¶ 76–79; Trial Tr. (Evans) 1649:9–23. Dr. Rossi conducted pre-testing and interviews on the initial survey design, which asked about spending in a "similar 30-day period in the future." It is not clear whether the pre-test adequately asked about the transience issue for either past or future spending. *See* PX-1920.3; Trial Tr. (Rossi) 2521:23–2544:11.

²⁸² Trial Tr. (Hanssens) 3541:23–3543:3.

²⁸³ Trial Tr. (Rossi) 2523:8–2, 2525:23–2527:16, 2529:20–23; *see also* Trial Tr. (Hanssens) 3539:10–13 (explaining that the terminology of "structured and "unstructured pretests" is not standard).

²⁸⁴ Of course, these first two issues may cancel each other out: since games are disproportionately likely to use in-app purchases, an increase in in-app purchases is effectively an increase in iOS game (and subscription) prices.

²⁸⁵ Trial Tr. (Rossi) 2534:24–2536:19, 2545:9–22.

ultimately assist in determining how a key demographic would make substitution decisions in the relevant market.

Dr. Rossi's trial testimony revealed that he was more interested in a result which would assist his client's case than in providing any objective ground to assist the Court in its decision making. Given Dr. Rossi's lack of credibility, the Court strains to adopt his findings. Although the survey is far from perfect for the reasons stated above, the Court finds it weakly probative, at most, that increases in in-app purchase content prices would not lead to significant substitution to other devices.²⁸⁶

Dr. Evans uses Dr. Rossi's survey to conduct a "SSNIP" test to confirm that iOS app distribution is a relevant aftermarket.²⁸⁷ The Department of Justice developed the test in 1982 to analyze mergers and determine what is the smallest market in which a hypothetical monopolist could impose a "Small but Significant and Non-transitory Increase in Price," usually 5 percent over the course of 12 months. Not only is this not a merger context, but as noted, the survey did not test anywhere close to an appropriate period.²⁸⁸ Despite the Court's misgiving of the accuracy of any opinion stemming from this survey, it reviews Dr. Evans' reliance thereon to perform a SSNIP analysis.

As an overview, Dr. Evans first calculates an "effective" commission rate of 27.7%, and then determines that a 5% increase to consumers would correspond to a 30% increase in developer commissions. Because even this large increase in commissions would be profitable for Apple due to the lack of consumer switching, Dr. Evans concludes that iOS distribution is its own market.²⁸⁹ Dr. Evans confirmed that consumer response to long-run price changes may be substantially different than for short-run ones.²⁹⁰ This feature is important to Dr. Evans' analysis. As discussed above, Dr. Rossi's failure to survey properly and confirm respondents' understanding of a non-transient price increases leaves the adequacy of the survey for a SSNIP analysis in question.

Economists lack consensus about how to design hypothetical monopoly tests properly to account for indirect network effects. While Dr. Evans has proposed one approach, another preeminent economist, Dr. Schmalensee, believes it is conceptually flawed. Even Dr. Evans himself has previously written that "even if it is technically possible to extend the hypothetical

²⁸⁶ See *id.* 2509:16–2510:25. Apple also faults Dr. Rossi for the low levels of respondent spending on in-app content. However, those rates appear to be in line with the App Store median. See Ex. Expert 3 (Rossi) ¶ 49.

²⁸⁷ Ex. Expert 1 (Evans) ¶ 139.

²⁸⁸ *Id.* ¶¶ 35, 136, 254.

²⁸⁹ *Id.* ¶¶ 136–144; PX-1050; Ex. Expert 6 (Hitt) ¶ 179.

²⁹⁰ Trial Tr. (Evans) 1652:23–1653:02.

monopoly test to two-sided platforms, the challenges of implementing the SSNIP test empirically in two-sided markets are likely to be overwhelming in practice.”²⁹¹

Despite this self-acknowledged difficulty, Dr. Evans uses the SSNIP test anyway. The Court finds Dr. Evans’ SSNIP analysis fatally flawed by several standards, including his own. Dr. Evans has acknowledged that a double-sided SSNIP test should include simultaneous testing of both sides of the market using at least 14 inputs. He has not followed that methodology here. Nor did Dr. Evans take into account indirect network effects in his SSNIP analysis.²⁹²

Indeed, Dr. Evans conducts his foremarket and aftermarket SSNIP tests on the consumer side and on the developer side separately. Then, he effectively dismisses indirect network effects by claiming that SSNIP on both developers and consumers would be profitable, because neither side would respond to the one-sided price increases he tested. As Professor Schmalensee explained, this is implausible: a price increase would reduce consumer demand for apps, which in turn would make app sales less profitable for developers, and developers may in turn react by reallocating engineering or marketing resources even if they do not leave the platform entirely. Notably, Dr. Evans does not perform *any* actual SSNIP calculations testing both sides of the market simultaneously, as required by his own research.²⁹³

Dr. Evans’ SSNIP analysis is further based on flawed survey data from Dr. Rossi, which affects the validity of any conclusions derived therefrom. Dr. Rossi’s survey and the resulting data suffer from several critical flaws.²⁹⁴ The Court will not rehash the entirety of these flaws here. Suffice it to say, three errors are particularly notable:

First, the survey focuses entirely on the price of in-app purchases—which, as noted above, are *not* even within the alleged relevant market advanced by Dr. Evans— while ignoring other transactions, like initial downloads and updates, that are in the alleged relevant market advanced by Dr. Evans. As a result, Dr. Evans’s analysis is unreliable and provides no insight into substitution in any alleged iOS app distribution market.²⁹⁵

Second, the price increases discussed in the survey—when confined to just 30 days—also were far from significant, ranging from less than \$0.25 to \$1.50. And the significance of the

²⁹¹ Trial Tr. (Evans) 1668:5–1669:2, 1667:16–23; Trial Tr. (Cragg) 2302:7–16; Ex. Expert 8 (Schmalensee) ¶¶ 63, 81–82.

²⁹² Ex. Expert 8 (Schmalensee) ¶¶ 84, 88; Trial Tr. (Schmalensee) 1897:5–1899:8.

²⁹³ Ex. Expert 1 (Evans) ¶¶ 133, 138–139, 141, 262, 68; Trial Tr. (Schmalensee) 1898:10–14.

²⁹⁴ Trial Tr. (Schmalensee) 1897:20–23 (Dr. Evans relies on Professor Rossi’s survey, which is “far from perfect”); Ex. Expert 7 (Lafontaine) ¶ 74.

²⁹⁵ Trial Tr. (Rossi) 2549:13–2550:1; Trial Tr. (Evans) 1646:16–1647:5; Ex. Expert 7 (Lafontaine) ¶ 75.

price increases were dampened even further by the survey’s discussion of switching costs.²⁹⁶ This is despite the fact that the App Store is highly dependent on a narrow subset of high earning gaming apps and an equally narrow subset of high and medium consumer spenders. In other words, these consumers and developers were not adequately captured by Dr. Rossi’s survey, which reflected only small increases in price.

Finally, the survey was limited to the United States, not the global market that Dr. Evans posits.²⁹⁷

Given the flaws in both the underlying survey and Dr. Evans’ calculations thereon, the Court finds this evidence wholly unpersuasive of substitution.

c. Mobile Devices (Tablets and the Switch)

As outlined above, Apple’s product market is all digital gaming transactions. It therefore focuses on platform substitutes for those transactions. Apple suggests two categories of platforms: (1) mobile devices (tablets and the Switch) and (2) non-mobile devices.

iPads are indisputably part of the Apple ecosystem. Evidence shows that 60% of iPhone users also use an iPad (tablet), so they have access to both devices. Documents also show that Apple seeks to decrease switching costs from iPhones and iPads to “lock customers into [its] ecosystem.” Thus, tablet transactions are substitutes for those on smartphones because they are part of the same ecosystem and users have access and easy switching ability between the devices.²⁹⁸

In evaluating Apple’s market definition, Dr. Evans excludes tablets on the sole ground that they lack certain hardware features, like a cellular connection. This is not persuasive: as Dr.

²⁹⁶ Trial Tr. (Rossi) 2539:13–2540:16, 2543:12–2544:25. The Court further notes that Dr. Rossi’s survey appears have been inappropriately based on an increase in the total cost of the in-app purchases and subscriptions, instead of based on an increase in the amount of Apple’s commission rate. The Department of Justice website, which Dr. Evans approvingly cites in his report, notes that in cases involving an analogous transaction in oil pipelines, the appropriate SSNIP analysis is based on the cost of transporting the oil (amount from the commission rate), not on the cost of the oil at the terminal end point (total cost of the in-app-purchases). *See* Ex. Expert 1 (Evans) ¶ 253, n. 113; *see also* U.S. Department of Justice and the Federal Trade Commission, “Horizontal Merger Guidelines,” August 19, 2010, at § 4.1.2, <https://www.justice.gov/atr/horizontal-merger-guidelines-08192010>.

²⁹⁷ Trial Tr. (Evans) 1653:3–16.

²⁹⁸ Ex. Expert 1 (Evans) ¶¶ 43–44, 75; Ex. Expert 6 (Hitt) ¶ 189; Trial Tr. (Federighi) 3357:15–18; Trial Tr. (Fischer) 874:24–875:11; PX-0416; DX-3174.003; PX-0892. Moreover, Epic Games’ arguments to the contrary contradict its own theory that users and developers select “ecosystems” rather than devices. As Dr. Evans explains, “Apple and Google have created highly differentiated ecosystems around their respective operating systems,” and developers and consumers select devices based on the ecosystem.

Hitt notes, tablets possess most of the unique hardware features Dr. Evans assigns to smartphones. Epic Games has not demonstrated that the slight remaining hardware differences are sufficient to prevent substitution for smartphone and tablet game transactions. Accordingly, tablet game transactions are substitutes for smartphone game transactions and part of the same market.²⁹⁹

d. Non-Mobile Devices (Consoles and PCs)

Consumers frequently own multiple devices and could in theory substitute across them for game transactions. Surveys conducted by Apple show that gamers are especially likely to use several devices, with 56% playing on both mobile and non-mobile platforms.³⁰⁰

However, there are two issues with this data. First, it inappropriately uses statistics about gamers as a whole to draw conclusions about iOS gamers.³⁰¹ Apple has not shown that gamers as a whole are representative of iOS gamers. It may well be that 55-60% of U.S. gamers play on more than one device, but that *iOS* gamers switch considerably less often. This outcome is plausible: Apple's evidence shows that large portions of the population—including young children, older adults, and most teenage girls—play predominantly on mobile. Multi-platform play, on the other hand, is driven by different segments. Thus, Apple's own evidence shows that mobile gamers are *not necessarily* like other gamers.³⁰²

Recognizing this issue, Apple offers evidence by Dr. Hanssens, who conducted two surveys on iOS App Store users and *Fortnite* players, respectively. The first survey shows that 99% of App Store consumers use or could use at least one other non-iOS device. The second survey shows that 99% of iOS *Fortnite* players use or could use non-iOS devices. Moreover, 94% of iOS *Fortnite* players played games on non-iOS devices in the last 12 months.³⁰³

While Dr. Hanssen is considerably more credible and independent than Dr. Rossi, Dr. Hanssen's survey is also severely flawed and ultimately unreliable.³⁰⁴ First, he reports that 30-43% of respondents "regularly" use a Microsoft Windows phone even though Microsoft had 0% market share in smartphones in 2018 and no longer sells phones. This data point alone calls into

²⁹⁹ Ex. Expert 6 (Hitt) ¶¶ 230–233; Ex. Expert 1 (Evans) ¶ 43 n.3.

³⁰⁰ Ex. Expert 6 (Hitt) ¶¶ 57, 61; DX-3174; Trial Tr. (Wright) 550:3–10, 631:19–22.

³⁰¹ As explained below, Apple also uses statistics about *Fortnite* to draw conclusions about the gaming industry. That suffers from a similar problem: no evidence in the record shows that *Fortnite* is representative of other games.

³⁰² DX-4170.008, .024.

³⁰³ DX-4663.001; DX-4754.001; Ex. Expert 6 (Hitt) ¶ 58.

³⁰⁴ Notably, Dr. Hanssens was the only expert to explain that his work was not directed by attorneys; nor was he aware of how his work fit into Apple's strategy thus, demonstrating independence. For this reason, the Court finds Dr. Hanssens quite credible.

question the reliability of the survey overall.³⁰⁵ Second, Dr. Hanssen’s surveys do not address substitution because he only measures access. Dr. Hanssen acknowledges this: the surveys “did not address substitution at all” because doing so would require questions about willingness and ability to switch, as well as actual behavior in different circumstances. Thus, the ultimate value of Dr. Hanssens’s survey is limited.

With respect to actual substitution, Apple relies solely on three “natural experiments” examined by Dr. Hitt.³⁰⁶

First, Dr. Hitt considers users who downloaded a console or PC game “companion” app, such as the Xbox companion app as a proxy for those who own or play games on a console or a PC. Dr. Hitt finds that users who download the console or PC companion app increase their iOS game spending at a slightly lower rate—19% as opposed to 24% growth in iOS game spending as compared to a control group who did not have the companion app. Because V-Bucks are the same on both platforms, Dr. Hitt concludes that the use of both devices shows substitution. That said, the group that downloaded the companion app spent *more* on iOS games than the group that did not. This is consistent with complementary gaming if spending increases.³⁰⁷ Both conclusions are logical.

Second, Dr. Hitt considers the natural experiment provided by the entry of *Fortnite* on the Nintendo Switch. Dr. Hitt finds that when *Fortnite* launched on Switch, iOS *Fortnite* spending and playtime decreased. Dr. Hitt acknowledges that *Fortnite* spending across *all* platforms decreased during that time by 33%. Thus, to control for the general decrease, he compares iOS spending for users who played and did not play *Fortnite* on Switch. Dr. Hitt then concludes that iOS *Fortnite* players who played on Switch played and spent relatively less time on iOS. Again, the evidence is consistent with substitution but does not establish it.³⁰⁸

Next, Dr. Hitt’s data also shows that players who used both iOS and Switch increased their *overall* spending and playtime in *Fortnite*. The absolute numbers for iOS *Fortnite* revenue actually increased after the introduction of Switch. Dr. Cragg converts this data to plausibly opine that this shows complementary playing—users who acquired a second device became

³⁰⁵ To Dr. Hanssens’ credit, he readily acknowledges these issues and eventually removed the respondents who reported Windows phone use. However, this amounts to 30-43% of an already small survey pool rendering the exercise unreliable. Trial Tr. (Hanssens) 3580:15–3581:14; 3568:12–17, 3570:3–14, 3574:2–8, 3576:11–3578:17, 3551:18–3552:18; DX-4312.178; Ex. Report 6 (Hitt) ¶ 71.

³⁰⁶ Trial Tr. (Hanssens) 3551:22–3554:6, 3557:11–13; Ex. Expert 6 (Hitt) ¶¶ 82–99; *see also* Ex. Expert 13 (Cragg) ¶¶ 43–48.

³⁰⁷ Ex. Expert 6 (Hitt) ¶¶ 69–72, 82–87; DX-4792; Ex. Expert 13 (Cragg) ¶ 56.

³⁰⁸ Ex. Expert 6 (Hitt) ¶¶ 73–86; DX-4822; DX-4823; Trial Tr. (Schmalensee) 1935:22–1936:4.

more engaged in the game—rather than substitution. Using this lens, the evidence is as consistent with complementary playing as with substitution.³⁰⁹

Third, Dr. Hitt analyzes *Fortnite* data following its removal from iOS. As described above for Dr. Evans, this evidence is mixed at best: while some iOS-only *Fortnite* players switched, that number was not significant enough to recoup losses and represented only 16% of playtime minutes and at most half of Epic Games’ revenue from these users. Thus, the Court does not consider it persuasive either way.³¹⁰

Accordingly, Dr. Hitt’s and Dr. Cragg’s analyses show evidence of both substitution and complementary playing without a definitive answer either way.³¹¹ Ultimately, the Court proceeds without resolving the issue on this record.

3. Gaming v. Non-Gaming and Apple’s App Store

As explained above, Epic Games argues that its aftermarket should be defined to include all apps not just gaming apps as the distribution on the App Store is not limited.

The evidence demonstrates that the App Store, in its current form, generates virtually all its revenue upon a business model now rooted in the gaming market: both on game developers and gaming consumers. This is proved by both financial considerations and other notable distinctions between gaming and non-gaming apps. The Court notes eight other significant differences which exist between game apps and non-game apps as the Court considers the relevant product market.

First, in recent years, game app revenues constitute between 60-75 percent of all app transactions for Apple’s App Store. Indeed, game app transactions are responsible for a significant majority of the revenue generated in the App Store.³¹²

Second, there is industry and public recognition of a distinct market for digital game app transactions as opposed to non-gaming apps. Indeed, many general app stores on mobile and tablet devices, including the App Store, Google Play app store, and the Amazon App Store,

³⁰⁹ Ex. Expert 13 (Cragg) ¶¶ 50–64; PX-1023; PX-1022; Trial Tr. (Schmalensee) 1935:22–1936:16; Trial Tr. (Cragg) 2280:15–23.

³¹⁰ Dr. Hitt also relies on evidence from Spotify and Netflix subscription option removals from iOS apps. As this evidence concerns subscriptions, not games, the Court does not consider it for the reasons stated above.

³¹¹ Ex. Expert 6 (Hitt) ¶¶ 94–105.

³¹² The precise numbers are found in sealed documents. *See* Ex. Expert 6 (Hitt) ¶ 117 (62.9% in 2018); Trial Tr. (Hitt) 2126:16–19 (same); DX-4178.006 (76% in 2017); PX-0059.007 (68% in 2019). As previously discussed, *supra* n.243, the Google Play app store appears to be similarly built and reliant upon revenues generated from gaming apps and transactions. *See also* DX-3913.004–.013.

distinguish between game transactions and non-game transaction by categorizing game apps into a separate tab of apps entirely. This distinction reflects the recognition by the platforms that consumers distinguish between these types of apps, and that both consumers and platform owners would benefit from having games apps separately gathered in one place.³¹³

Both Apple’s App Store and internal business structure support and reflect this division. On the App Store, editors consider a different set of factors when curating games for spotlight marketing (*i.e.* the “Today” page) than they do when curating other non-gaming apps. Moreover, Apple internally tracks the categories differently, as Apple routinely tracked “Games” billings separately from other parts of the App Store business. Further, there are two heads of business development for the division spearheading the App Store: one division head specifically for games and another division head for all non-gaming categories.³¹⁴

Third, game app transactions are a distinct product because they exhibit peculiar characteristics and uses. Game apps and their transactions are not substitutes for non-game apps, which include a diversity of categories and purposes. Indeed, Dr. Evans conceded and confirmed in a lengthy exchange that game transactions are *not* substitutes for non-game transactions on the App Store. Epic Games’ other expert witness, Dr. Cragg, contradicted Dr. Evans on this point by asserting the opposite—that non-game transactions are substitutes for game transactions.³¹⁵ The Court finds Dr. Evans more credible on this point.³¹⁶

Fourth, game developers often use specialized technology to create their game apps. For example, specialized middleware tools like the Unity engine and Epic Games’ *Unreal Engine* are primarily used by game developers. Using these specialized tools and graphics engines, game developers tend to “really push the limits of what graphics processing can do” to the extent that they are “in a different category” from other developers as a result.³¹⁷

Fifth, game apps have distinct consumers and producers: gamers and game developers. Gamers are recognized as a discrete, albeit diverse, subset of app consumers. Moreover, game

³¹³ Trial Tr. (Schmid) 3205:4–11; Ex. Expert 6 (Hitt) ¶ 126, Fig. 35; Ex. Expert 7 (Lafontaine) ¶ 26; DX-5552.

³¹⁴ Trial Tr. (Fischer) 933:12–20; Trial Tr. (Schmid) 3205:4–11, 3226:8–12; Ex. Expert 6 (Hitt) ¶ 127; Ex. Expert 7 (Lafontaine) ¶ 26; DX-4178.006; DX-4399.008.

³¹⁵ Ex. Expert 6 (Hitt) ¶ 117, Fig. 30; Ex. Expert 7 (Lafontaine) ¶ 26; Trial Tr. (Evans) 1641:7–1642:24; Trial Tr. (Cragg) 2301:19–2302:1.

³¹⁶ Apple demonstrated on cross examination that Mr. Cragg was willing to stretch the truth in support of desired outcome for his client. By contrast, Dr. Evans was willing to concede points contrary to the position of his client. The Court finds this difference significant in weighing the credibility of each.

³¹⁷ Trial Tr. (Schmid) 3226:23–3227:13; Ex. Expert 6 (Hitt) ¶ 265. The Court notes, however, that, at least with respect to *Unreal Engine*, there is also evidence that it has some application beyond the game creation. *See supra* Facts § I.B.1.

developers, including Epic Games, tend to specialize in the development of game apps and related gaming software. For instance, among the set of developers who had sold at least one game or item of in-app content in 2019, 88% of their App Store revenue was derived from game apps. Indeed, as Michael Schmid, Head of Game Business Development at Apple, remarked:

So game developers are quite separate from app developers in many circumstances. There are exceptions like big organizations like Microsoft that, you know, have Microsoft Office as well as, you know, Minecraft and other – other games.

But generally speaking, game developers are focused on just developing games, and app developers are often focused on a single app or a suite of apps.³¹⁸

Sixth, game app transactions differ in pricing structure, including in monetization models and effective prices, from non-gaming app transactions. In general, games monetize in different ways than do non-gaming apps. For example, game apps make nearly all of their revenue from in-app purchases (non-subscriptions). This differs from other major categories of apps, where music, fitness, and other apps make virtually all of their revenue from subscriptions. Indeed, there were no game apps among the top subscription apps for fiscal year 2019.³¹⁹

Moreover, the pricing and effective commission paid on each transaction differs significantly between game apps and non-game apps. Specifically, there is considerable variation in the average transaction price between app genres, including game apps and other apps. For example, the average transaction price for game apps is \$9.65, while the averages for other app genres range between \$7.11 for photo and video apps and \$14.10 for health and fitness apps. Similar variation between game apps and non-game apps is found in the average download price for apps and the effective commission paid on each transaction.³²⁰

Seventh, game apps are distributed by specialized vendors. The availability of game apps versus non-game apps in the wider market differs significantly. Indeed, game apps have multiple avenues for distribution through various transaction platforms and devices, which differs in both kind and degree from those available to non-gaming apps. Some of these devices and platforms available to gaming apps are specifically designed for such games—and not non-gaming apps. For example, game consoles (PlayStation, Xbox, Switch) are designed with gaming as their primary purpose with other limited related entertainment functionality (*e.g.*, film, music, and television streaming). Similarly, the game transaction platforms available on these

³¹⁸ Trial Tr. (Schmid) 3226:13–22, 3350:5–3352:3; Ex. Expert 6 (Hitt) ¶ 125, Fig. 34; DX-3248.019–.020.

³¹⁹ Trial Tr. (Lafontaine) 2045:3–9; Trial Tr. (Hitt) 2188:18–2189:8; Trial Tr. (Schmid) 3227:14–24 (“[M]any app developers now are really focused on subscription revenue and growing a subscription business, whereas game developers not as much.”), 3230:1–20; Ex. Expert 6 (Hitt) ¶¶ 121–23, Figs. 30–32; PX-0608.016.

³²⁰ Ex. Expert 6 (Hitt) ¶¶ 123, 124, Figs. 32–33.

devices focus almost exclusively on game transactions, including the PlayStation Store, Xbox Game Store, and Nintendo eShop.³²¹

Eighth and finally, platforms providing game app transactions are subject to unique and emerging competitive pressures. The rise of hybrid console platforms along with cross-platform games and cross-platform gaming services (e.g., cloud-based streaming services) reflect the ongoing dynamic nature of the wider gaming market. For instance, Nvidia’s GeForce Now game streaming platform (available via web browsers or the GeForce Now client) only became available in February 2020 and has a library of 850 games (including *Fortnite*, though planned to be released in October 2021 on GeForce’s iOS game streaming service), with 2,500 games to be added. Microsoft similarly is in development of its own cloud gaming service, internally named xCloud, that will be added to its Game Pass Ultimate Subscription.³²² With these numerous alternative distribution options, developers are having to determine in the initial planning which platforms to utilize in creating game apps. This compares to non-game app developers who generally distribute on more limited devices and platforms. As an example: Mr. Schmid credibly remarked on the state of the market for developers:

On the game side it’s very common. Some of our biggest game developers will have games on many different platforms. Sometimes those games are cross-platformed. Sometimes they are specific to mobile or even exclusive to a console in certain cases.

On the app side, same thing except it’s more typical that an app, for instance, like Yelp would be -- the entity itself, the company, and the app would only be, you know, one app as opposed to a game developer that would have many games.³²³

Accordingly, in light of the foregoing, the Court finds that there is a substantial distinction between the transactions for gaming apps and non-gaming apps.

³²¹ Ex. Expert 6 (Hitt) ¶ 117; Ex. Expert 7 (Lafontaine) ¶ 34; Ex. Expert 8 (Schmalensee) ¶ 104; Trial Tr. (Wright) 555:13–556:5, 583:8–18; Trial Tr. (Grant) 697:14–20.

³²² Ex. Expert 8 (Schmalensee) ¶¶ 104, 107; Trial Tr. (Wright) 565:20–566:1; Trial Tr. (Patel) 422:12–15, 427:4–17, 429:11–14, 461:13–462:5, 477:7–15, 526:15–18; Trial Tr. (Sweeney) 176:22–177:12. *See also infra* Facts § II.D.3.d. Indeed, the Court notes that the only third-party app stores that Epic Games identified during the course of the bench trial as having sought to be offered through the App Store are “gaming app stores,” and not “any other kind of store.” *See* Trial Tr. (Evans) 1552:22–1553:8. This suggests that there are indeed competitive pressures and consumer demands for games apps that are incentivizing and encouraging game developers to reach consumers through multiple platforms.

³²³ Trial Tr. (Schmid) 3207:10–18.

C. Epic Games: Facts Relevant to iOS In-App Payment Processing Aftermarket

Epic Games’ assertion that the iOS in-app payment processing aftermarket is a relevant antitrust market relies on the assumption that Apple maintains a “lawful monopoly in the iOS app distribution market.”³²⁴ Because Epic Games cannot show such a market even exists, the argument fails at the outset.

Nevertheless, the Court addresses the argument because another fundamental problem exists. As discussed below, one must define an antitrust market in terms of the relevant product. If there is no product, such as with the mobile operating systems discussed above, there can be no market based thereon. Plaintiff’s proposal begs the question of whether IAP is a product.

Apple’s IAP or “in-app purchasing” system is a collection of software programs working together to perform several functions at once in the specific context of a transaction on a digital device. Apple uses the system to manage transactions, payments, and commissions within the App Store, but it also uses the system in other “stores” on iOS devices, such as “the iTunes Store on iOS, Apple Music, iCloud or Cloud services” and “physical retail stores”.³²⁵ The system is not something that is bought or sold.

IAP is not integrated into the App Store itself, even though it is integrated into an iOS device.³²⁶ By “integrated,” the Court only means that the application has been engineered specifically to work seamlessly on the device. Neither side focused on the engineering to find otherwise.

More specifically, Apple’s IAP, as used here, is a secured system which tracks and verifies digital purchases, then determines and collects the appropriate commission on those transactions. In this regard, the system records all digital sales by identifying the customer and their payment methods, tracking and accumulating transactions; and conducts fraud-related checks. IAP simultaneously provides information to consumers so that they can view their purchase history, share subscriptions with family members and across devices, manage spending by implementing parental controls, and challenge and restore purchases.

Apple also intends the system to provide the customer with a single interface which can be used, and trusted, with respect to all purchases regardless of the developer. Importantly, the system has become more sophisticated over time, but the record does not detail the various

³²⁴ Ex. Expert 1 (Evans) ¶ 220.

³²⁵ Ex. Depo. 12 (Gray) 65:17–22, 66:23–67:2, 110:2–7, 110:9–15; PX-0523; PX-0526.

³²⁶ *See, e.g.*, PX-0526.

versions.³²⁷ Notably the IAP system requires developers to independently verify delivery of in-app purchasing content; it cannot verify that kind of delivery itself.³²⁸

With respect to the commission and the transfer of money between a developer and both Apple and the consumer, Apple engages third-party payment processors.³²⁹ Given the volume of transactions at issue, Apple pays those processors somewhere in the range of one to two percent.³³⁰

The Court agrees that simple payment processing can occur outside of IAP and plaintiff points to examples of this happening in 2009.³³¹ However, those examples only concern simple payment processing, *not* all the functionality outlined in the preceding paragraph, including the functionality to ensure Apple received its commission. Nor do the examples show that Apple was waiving its commission for those developers. Rather, in December 2008, the product was new, so, by definition, in flux.

Epic Games ignores this other functionality to argue that Apple merely “matches” developers to consumers; a “matching” service.³³² This statement is partially true, but Apple has never argued that it levies a commission merely because it matches the developers with the customers. Apple argues that it uses this model to monetize its intellectual property against the entire suite of functions as well as to pay for the 80% of all apps which are free and generate no direct revenue stream from the developers other than the annual \$99.00 developer fee.

Creating a seamless system to manage all its e-commerce was not an insignificant feat. Further, expanding it to address the scale of the growth required a substantial investment, not to

³²⁷ PX-0526; Ex. Depo. (Forstall) 252:06–252:13, 252:16–254:10; Trial Tr. (Schiller) 2796:4–2799:11.

³²⁸ Ex. Depo. 12 (Gray) 112:18–114:10.

³²⁹ Trial Tr. (Schiller) 2796:4–2799:11; Ex. Expert 8 (Schmalensee) ¶¶ 136, 161–62; Trial Tr. (Evans) 1565:3–6; 1664:16–18 (Q: “. . . I’m asking you if in your relevant market, Apple is a competing payment processor? A. Largely no.”).

³³⁰ Ex. Depo. 12 (Gray) 78:10–79:8.

³³¹ See Ex. Depo. (Forstall) 230:05–231:02; PX-0888; PX-1701.002; PX-1813; PX-1818.001; PX-1703.001–.002; PX-1709.001. Mr. Forstall testified that he generally remembered that developers were trying to collect payment directly through apps prior to 2009, but Epic Games introduced only stray emails to show this took place. Regardless, Epic Games does not claim that Apple had market power in 2009, so this theory of purported price increase has little relevance. Ex. Depo. (Forstall) 230:05, 230:16–230:18, 230:20–230:22; Trial Tr. (Evans) 1670:24–1671:2; e.g., PX-1709. Moreover, it merely shows that the nascent business was in flux.

³³² As noted above, this aftermarket relies on the distribution market where the “match” is made. Payment is necessarily rendered thereafter. See Trial Tr. (Evans) 1596:8–1597:1.

mention the constant upgrading of the cellphones to allow for more sophisticated apps.³³³ Under current e-commerce models, even plaintiff's expert conceded that similar functionalities for other digital companies were not separate products.³³⁴ Under all models, Apple would be entitled to a commission or licensing fee, even if IAP was optional.³³⁵ Payment processors have the ability to provide only one piece of the functionality. There is no evidence that they can provide the balance. Thus, the Court finds Epic Games has not shown that IAP is a separate and distinct product.³³⁶

D. Apple: Digital Video Game Market

Apple proposes that the wider global digital video gaming market is the relevant product market. Epic Games opposes this product market. The Court summarizes the evidence with respect to global digital video gaming. Given how the cases was litigated, much of the evidence relates to plaintiff specifically.

1. *Defining a Video Game*

The Court begins with a definition of "video game." Unfortunately, no one agrees and neither side introduced evidence of any commonly accepted industry definition. The evidence included one witness, Mr. Weissinger, who acknowledged that, even with his deep background in the gaming industry, he was not familiar with any industry standard definition of a video game.³³⁷ Mr. Sweeney, for instance, defined a game as follows:

I think game involves some sort of win or loss or a score progression, on whether it is an individual or social group of competitors. With a game you're trying to build up to some outcome that you achieve, as opposed to an open-ended experience like building a *Fortnite Creative* island or writing a Microsoft Word

³³³ Trial Tr. (Malackowski) 3619:2–14; Trial Tr. (Fischer) 933:20–934:16 (describing Apple's investment in the 2017 redesign); Trial Tr. (Schiller) 2877:2–20.

³³⁴ Trial Tr. (Evans) 1654:17–1655:22, 1657:8–22, 1659:25–1660:16 (agreeing that similar functionalities at Uber, Lyft, Grubhub, Wish, StubHub, DoorDash, Instacart, Postmates, Amazon Shopping, Wal-Mart, and eBay are not separate products).

³³⁵ Ex. Expert 8 (Schmalensee) ¶ 157.

³³⁶ Epic Games also relies on Section II.F. of its Findings of Fact which relates to iOS App Store Profitability. In evaluating IAP, the Court has focused on functionality.

³³⁷ Trial Tr. (Weissinger) 1297:25–1298:2 ("Q. In your view, is there an industry standard definition of what could be called a game? A. I don't think so, no.").

document. There is no score keeping mechanic and you are never done or you never win.³³⁸

Mr. Trystan Kosmynka, Apple’s current Head of App Review, admittedly “not an expert in gaming,”³³⁹ noted that “games are incredibly dynamic,” that “[g]ames have a beginning, [and] an end,” and that “[t]here’s challenges in place.”³⁴⁰

At a bare minimum, video games appear to require some level of interactivity or involvement between the player and the medium. In other words, a game requires that a player be able to input some level of a command or choice which is then reflected in the game itself.³⁴¹ This gaming definition contrasts to other forms of entertainment, which are often passive forms enjoyed by consumers (e.g., films, television, music). Video games are also generally graphically rendered or animated, as opposed to being recorded live or via motion capture as in films and television.³⁴²

Beyond this minimum, the video gaming market appears highly eclectic and diverse. Indeed, neither Mr. Sweeney’s nor Mr. Kosmynka’s descriptions, which focus on linear narratives and competitive modes, captures the diversity of gaming that appears to exist in the gaming industry today. Mr. Allison acknowledges that while some games are competitive, and are appropriately labeled as such on the Epic Games Store’s website, other games are not necessarily competitive.³⁴³ Given the genre of simulation games like *The Sims* or *SimCity*, or open-ended sandbox games like *Minecraft*, the Court cannot conclude that any linear narrative is

³³⁸ Trial Tr. (Sweeney) 328:13–19.

³³⁹ *Id.* 1190:10.

³⁴⁰ Trial Tr. (Kosmynka) 1015:23–25.

³⁴¹ For instance, the Court is generally aware that one of the first commercially successful games, *Pong*, consisted of minimal input from the player of moving a paddle up or down. Of course, modern console, computer, and mobile gaming now permit dynamic inputs beyond just one input. For instance, modern controllers for gaming consoles now include at least two analog sticks, a directional pad (d-pad), and several buttons found on both the front face and side edges of each controller. *See generally* PX-2776 (Nintendo Switch); PX-2777 (Sony PlayStation 5); PX-2778 (Microsoft Xbox Series X).

³⁴² Though, the Court understands that some games, such as older *Mortal Kombat* games, have utilized motion capture technology in rendering graphics and animations in the game.

³⁴³ Trial Tr. (Allison) 1241:16–1242:18. Although not in the record, the Court generally understands that: (1) *The Oregon Trail* is a game that simulates crossing the United States of America via the historic Oregon Trail in the nineteenth (19th) century; and (2) that *The Sims* is a life simulation game that simulates general modern life (*i.e.*, socializing, employment, romance, family, skills, etc.) through player characters known as sims.

required to qualify as a video game.³⁴⁴ Thus, the Court concludes that video games include a diverse and eclectic genre of games, that are tied together at minimum through varying degrees of interactivity and involvement from a game player.³⁴⁵

Some of Epic Games’ fact witnesses suggested in their testimony that *Fortnite* was much more than a video game: it is a metaverse. The Court previously discussed Mr. Sweeney’s sincere beliefs as to *Fortnite* and the metaverse. A metaverse is a virtual world in which a user can experience many different things—consume content, transact, interact with friends and family, as well as play.³⁴⁶ According to Mr. Sweeney, game play need not be a part of a user’s metaverse experience, which is more to mimic the reality of life than to present game play.³⁴⁷

As discussed, to Messrs. Sweeney and Weissinger “*Fortnite* is a phenomena that transcends gaming.”³⁴⁸ Because of the inclusion of these social and creative experiences, Mr. Weissinger testified that he would not consider the *Party Royale* and *Creative* modes as qualifying as a game.³⁴⁹

Plaintiff’s characterization of *Fortnite* notwithstanding, the Court need not reach a conclusive definition of a video game or game because by all accounts, *Fortnite* itself is both externally and internally considered a video game.³⁵⁰ Epic Games markets *Fortnite* to the public

³⁴⁴ Of course, many games are also narrative driven as recognized by Mr. Kosmyinka. Microsoft’s internal review of *The Last of Us Part II*, a Sony PlayStation exclusive video game, confirms that at least some games are focused more on the narrative of the game as opposed to the game play itself. See PX-2476.002.

³⁴⁵ Indeed, the genre of gaming seems to include a diversity of genres and styles, with no strict consensus on what a game *must* include in order to be defined as a game.

³⁴⁶ Trial Tr. (Sweeney) 99:17–22; Trial Tr. (Weissinger) 1295:10–11 (describing a metaverse as a “social place where people can experience events together and hang out together”); Trial Tr. (Kosmyinka) 1127:18–23 (“So my own understanding of the Metaverse is a . . . virtual world where you go with your particular character and are with players that you know, players you may not know, and you navigate around that Metaverse, which could include additional worlds in various experiences.”).

³⁴⁷ Trial Tr. (Sweeney) 99:23–25.

³⁴⁸ *Id.* 98:6–8; Trial Tr. (Weissinger) 1295:8–21.

³⁴⁹ Trial Tr. (Weissinger) 1439:8–11 (“There are experiences beyond that, and there are some experiences that are separate and excluded from that as well. So there are some that I don’t think I would qualify it as a game.”).

³⁵⁰ Trial Tr. (Sweeney) 93:22–94:17, 111:13–17, 116:6–12, 324:14–23; Trial Tr. (Wright) 647:24–25; DX-5552; Trial Tr. (Allison) 1246:7–1247:18; Trial Tr. (Weissinger) 1354:1–1376:15 (explaining the various game modes within *Fortnite*, all of which are and/or contain games).

as a video game,³⁵¹ and further promotes events within *Fortnite* at video game related events.³⁵² Although *Fortnite* contains creative and social content beyond that of its competitive shooting game modes, there is no evidence or opinion in the record that a video game like *Fortnite* is considered by its parts (*i.e.*, the modes within the game) instead of in its totality. By both Mr. Sweeney and Mr. Weissinger’s own descriptions, the metaverse, as an actual product, is very new and remains in its infancy.³⁵³ At this time, the general market does not appear to recognize the metaverse and its corresponding game modes in *Fortnite* as anything separate and apart from the video game market.³⁵⁴ The Court need not further define the outer boundaries of the definition of video games for purposes of this dispute.³⁵⁵

³⁵¹ See, e.g., DX-5536.001; Trial Tr. (Allison) 1245:9–1247:18 (discussing DX-5536.001); DX-5541 (YouTube video demonstrating game play mechanics of *Fortnite*); Trial Tr. (Schmid) 3205:1–3 (“Q. And do you know, for example, what category of app Epic chose for *Fortnite*? A. They chose games.”).

³⁵² See Trial Tr. (Weissinger) 1336:11–15 (describing then upcoming collaborated events at the “Video Game Awards”).

³⁵³ See Trial Tr. (Weissinger) 1295:9–10; Trial Tr. (Sweeney) 99:14–15; Trial Tr. (Schiller) 2834:24–2835:5.

³⁵⁴ There was also much discussion about a similar metaverse game, *Roblox*, which contains creative experiences that are similar to those offered in the creative and party modes in *Fortnite*, and whether it too qualified as a video game. The discussion was not initially helped by Mr. Kosmynka, whose self-acknowledged unfamiliarity with the video game market and lack of knowledge on *Roblox*’s game classification caused him to use imprecise terminology in his testimony. See Trial Tr. (Kosmynka) 1015:18–1016:7, 1190:9–1191:6. Indeed, Mr. Schmid noted that while *Roblox* may have renamed the internal games offered within *Roblox* as “experiences,” it is “not saying that *Roblox* has decided they are no longer a game.” Trial Tr. (Schmid) 3295:15–17.

³⁵⁵ The Court leaves the thornier further questions of what is properly included and excluded in the definition of a video game to the academics and commentators. For instance, one example that arose beyond the issue of *Roblox* was the recent genre of films and shows on Netflix that allow users to make a choice akin to a “choose your own adventure,” including in *Black Mirror: Bandersnatch*, and *Unbreakable Kimmy Schmidt: Kimmy vs the Reverend*. See Trial Tr. (Wright) 576:24–577:2. The Court need not determine whether this interactivity is sufficient to convert these forms of media into a video game. Suffice it to say, these examples as well as the ongoing efforts in the metaverse, appear to be an ongoing trend of converging entertainment mediums where the lines between each medium are beginning to mesh and overlap.

2. General Video Game Market

The wider video game market appears dynamic, innovative, and competitive. This wider market includes at least four distinct submarkets for digital game app distribution:

1. online mobile app transaction platforms (*i.e.*, the App Store, the Google Play app store, and the Samsung Galaxy Store);
2. online gaming stores found on desktop and personal computers (“PCs”), including online transaction platforms focused on game distribution (*e.g.*, Valve Steam), and developers’ own stores that directly distribute their games (*e.g.*, Epic Games Store);
3. digital stores on consoles (*i.e.*, Sony PlayStation, Microsoft Xbox, and Nintendo Switch); and,
4. more recently, streaming game services (*e.g.*, Nvidia GeForce Now, Microsoft Xbox Cloud Gaming, Google Stadia).³⁵⁶

The gaming market today is the result of actions taken by competitors in the last two decades. The first successful online platform focused on game distribution was Steam, which launched in 2003. Steam By pioneering digital distribution on the PC, Steam enjoyed “a real boom in both Steam’s business and just PC gaming and digital gaming in general.” Steam “is a dominant player in the space and was in 2018 with 70 to 85 percent market share depending on how you define the space.”³⁵⁷

Steam’s success resulted in the rise of other PC-focused digital distribution platforms. In addition, the console platform owners created their own digital marketplaces: Microsoft launched Xbox Live Marketplace in 2005 (now Xbox Games Store on Xbox Series X and S), Sony launched the PlayStation Store in 2006, and Nintendo launched the Wii Shop Channel that same year (now the Nintendo eShop on the Switch). Most of these platforms, including Steam, charged a 30% commission.³⁵⁸

³⁵⁶ Trial Tr. (Sweeney) 95:23–96:1, 135:21–24, 138:23–25, 177:23–178:14; Trial Tr. (Wright) 637:18–24, 642:19–643:5 (stating that mobile is part of the gaming industry); DX-5532.011 (Microsoft 10-K); Trial Tr. (Schiller) 2748:7–13, 2867:9–20; Trial Tr. (Schmid) 3240:1–7 (“We [Apple] compete with Google Play and the other many Android marketplaces. We compete with the consoles, so Switch, PlayStation, Xbox. We certainly compete with PC and the – the PC stores like Epic Games Store or Steam. And now more and more we’re competing with the cloud gaming and – and the many companies that are getting involved in cloud gaming.”).

³⁵⁷ Trial Tr. (Allison) 1201:23–1204:24, 1248:12–22; Trial Tr. (Sweeney) 173:13–74:25.

³⁵⁸ Ex. Expert 8 (Schmalensee) ¶ 41, Ex. 1; PX-2476.006 (discussing competing gaming stores); Trial Tr. (Wright) 546:7–15; *see also* Trial Tr. (Sweeney) 191:910.

Since the App Store launched in 2008, the marketplace participants for game app distribution increased.³⁵⁹ For example, Google announced the Android Market in 2008 (which later became Google Play in 2012), Nokia and Samsung launched their Ovi Store and Galaxy Apps Store in 2009, and Nintendo launched its eShop for its 3DS device in 2011.³⁶⁰

Today, “[t]here are many ways to monetize [an] app on the App Store,” and Apple, like other industry participants, facilitates a variety of business models for developers. At least with respect to the App Store, there are at least five business models developers can use to make money on their apps: the free, freemium, subscription, paid, and paymium models. The record shows that under the “paid model,” (also called the “download and install” model), for instance, a developer may charge a price for the user to download the app. As discussed, a developer may instead choose the “freemium model,” allowing users to download an app for free but permitting in-app purchases. Alternatively a developer can offer subscriptions to users (for sale in the app, through a different platform, or online), can sell users digital currencies that can be used in the app (for sale in the app, through a different platform, or online), can sell advertisements in the app, or can charge for in-app promotions and events.³⁶¹

3. *Four Submarkets*

The Court summarizes the evidence with respect to each of the four distinct submarkets as it impacts the market definition:

a. Mobile Gaming

With respect to mobile gaming, the two dominant players are Apple (App Store) and Google (Google Play app store), with several other Android OS players including the Samsung (Samsung Galaxy Store). Importantly, both third-party and internal market reports recognize mobile gaming as a distinct market within the wider video gaming market.³⁶² Indeed, mobile gaming is “a vast part of the overall gaming industry,” so market participants, such as Microsoft, look “at mobile as a segment of the game industry as a whole,” and “[i]n any industry analysis, mobile would have to be part of the consideration.”³⁶³ Subsumed in mobile gaming are related

³⁵⁹ Trial Tr. (Schiller) 2748:1–13; *see also id.* 2772:13–17; PX-0888 (describing competitor commerce models on Xbox, Nintendo, and PlayStation).

³⁶⁰ Ex. Expert 8 (Schmalensee) ¶ 41, Ex. 1.

³⁶¹ PX-2790.009; Trial Tr. (Fischer) 925:24–926:1; DX-4614; Trial Tr. (Schiller) 2768:1–8, 2773:23–2774:5, 2779:12–21, 2791:11–18, 2858:11–22, 3094:11–22, 3100:9–22.

³⁶² *See generally* DX-3248 (identifying mobile gaming as one segment in the video game industry); PX-2477/DX-5523 (same).

³⁶³ Trial Tr. (Wright) 638:9–11, 639:1–2, 643:1–2.

Android and iOS tablets offered by Apple, Google, Amazon, and Samsung.³⁶⁴ Notably, whereas Apple iOS devices are closed platform or walled garden devices, Google Android devices are open platform devices.

Apple has always viewed Google Play as a significant competitor, including with respect to games transactions. There is further evidence of platform competition with the Samsung Galaxy store, as well.³⁶⁵ Apple also understood that other Android marketplace platforms were competitive forces. For example, when Amazon launched its Android app marketplace, Mr. Schiller wrote internally: “[T]he ‘threat level’ is not ‘medium’, it is ‘very high.’” Later, at the Fourth Annual App Store Global Management Team Summit, Apple spent considerable time discussing competition from Google, Samsung, and Amazon.³⁶⁶

Several other platform distributors own and maintain apps that offer some functionality and limited game streaming in connection with their original platforms. Steam also offers a variety of iOS applications through the App Store that allow Steam customers to manage their account and even stream games from their Steam library to their iOS device. PlayStation and Xbox have similar apps in the App Store that allow customers of those consoles to stream games from their consoles in order to play on their iOS device.³⁶⁷

Although relatively newer than both PC gaming and console gaming, mobile gaming constitutes a significant portion of the video gaming market. Indeed, as of 2017, it was forecasted that mobile gaming would generate *more than half of all game revenue globally*, and that the market would top more than \$100 billion by 2021.³⁶⁸ Similarly, Microsoft’s internal report reflects that mobile gaming accounted for “more than half of the industry revenue in CY2019.”³⁶⁹

Notably, the overwhelming majority of gaming revenue in mobile gaming derives from free-to-play games, or freemium model games.³⁷⁰ As contrasted to other platforms, women gamers of all ages (e.g., millennials, gen-x, and boomers) and gen-x male gamers are

³⁶⁴ Trial Tr. (Grant) 697:10–13; *see also* DX-3248.004 (defining mobile gaming as tablets and smartphones); PX-2477/DX-5523.002 (defining mobile as “[g]ames executing locally on a phone/tablet form factor (e.g., Clash of Clans); primarily iOS and Android”).

³⁶⁵ Trial Tr. (Schmid) 3239:23–3240:2; Ex. Expert 6 (Hitt) ¶ 142.

³⁶⁶ Trial Tr. (Schiller) 2866:1–20; DX-4447.001; DX-3734.041–.053.

³⁶⁷ Trial Tr. (Athey) 1843:7–19, 1844:10–14, 1851:1–23.

³⁶⁸ DX-3248.008.

³⁶⁹ PX-2477/DX-5523.008.

³⁷⁰ PX-2477/DX-5523.053; Trial Tr. (Schiller) 2791:11–18; Ex. Expert 8 (Schmalensee) ¶ 134; DX-3734.030.

predominately more likely to play and game on mobile devices, with an overwhelming focus and interest on casual games.³⁷¹

The mobile gaming market is slightly more nuanced domestically in the United States than it is globally. At least as of 2017, console gaming accounted for 43% of gaming revenue, whereas smartphone and tablets together accounted for approximately 40% of gaming revenue, with the remaining 17% of gaming revenue in browser and PC gaming.³⁷² Console gaming still accounted for a larger share in the United States and Western European countries, whereas mobile gaming generally made up a larger share of gaming revenue in the remaining parts of the world, but especially in Asia and in developing countries, where mobile gaming was already by 2017 the majority in gaming revenue.³⁷³

In general, the rate charged by platform owners such as Apple and Google, and those third-party app stores on Android such as Samsung, remain at 30%, notwithstanding both Apple and Google's recent moves to lower this rate for developers earning less than one million dollars annually to 15%. The Court notes however that some third-party mobile device marketplaces have decreased their rate after negotiations between it and developers.³⁷⁴

b. PC Gaming

PC gaming is characterized by an open market which includes several digital gaming marketplaces, such as Valve Corporation's Steam Store and more recently Epic Games' Epic Games Store, and several direct distribution platforms operated by larger game developers. As noted above, Steam retains a significant market share in the PC gaming area.

In the United States, as of 2017 PC gaming only accounted for approximately 15% of all gaming revenue. Globally, PC gaming does not account for a majority of gaming revenue in any country, though it has a significant market around or at least one-third (1/3) share in several Eastern European countries and in both China and South Korea.³⁷⁵ Of the demographics, "male boomer" aged gamers in the United States are more often playing games on the PC, with an interest in casual games.³⁷⁶

³⁷¹ See generally DX-4217. The Court notes that it uses the same terminology employed in the cited third-party report to describe the age ranges of certain groups.

³⁷² DX-3248.028.

³⁷³ See generally DX-3248.

³⁷⁴ See Trial Tr. (Schiller) 2810:16–2811:5, 2815:17–23; DX-4168; DX-4096.001; Trial Tr. (Hitt) 2088:10–14; Trial Tr. (Cook) 3860:4–10; Ex. Expert 8 (Schmalensee) ¶ 41, Ex. 1.

³⁷⁵ See generally DX-3248.

³⁷⁶ See generally DX-4217; *supra* n.371 (using report terminology to describe age ranges).

Similar to mobile gaming, PC gaming generated a majority of its gaming revenue from free-to-play or freemium games. Though, unlike mobile gaming, there is a sizable portion of PC gaming's revenue that is derived from pay-to-play games (*i.e.*, games purchased up-front).³⁷⁷

A platform's commission rate in the PC gaming area, historically 30%, now varies among the competing platforms. Steam's 30% cut, adopted since its inception in the early 2000s, was reduced in 2018 shortly before the launch of the Epic Games Store. Steam currently uses a tiered commission rate, whereby larger game sales and revenues decrease the commission rate, as low as to 20% for the highest tier of sales and revenues.³⁷⁸ Meanwhile the Epic Games Store charges a 12% commission for app distribution, as well as a 12% commission for in-app purchases when the app developer chooses to use Epic Games' direct payment for in-app purchases.³⁷⁹ Given that the 12% commission rate results in an operating loss, the move could be viewed as merely a litigation tactic. However, on the eve of trial, Microsoft recently announced, that it will be reducing its commission from 30% to 12% in the Windows Store.³⁸⁰ In terms of digital game sales on PCs and Macs, the Epic Games Store is "[a] clear and strong number two" behind Steam.³⁸¹ *See supra* Facts § I.B.3. With respect to its expansion to non-gaming apps, the move was likely litigation related. *Id.* In addition, many other developers launched major digital distribution platforms for their own and others' titles: Ubisoft launched Ubisoft Connect in 2012 and Bethesda launched Bethesda.net in 2016.³⁸²

³⁷⁷ *See* DX-5523.053 (23.3 billion attributed to free-to-play games versus 7.4 billion attributed to pay-to-play).

³⁷⁸ Trial Tr. (Allison) 1209:13–1210:1.

³⁷⁹ Trial Tr. (Sweeney) 126:1–7.

³⁸⁰ Trial Tr. (Wright) 553:17–554:6; Trial Tr. (Allison) 1221:4–7, 1275:20–1276:5 (“Microsoft has switched to an 88/12 share on the Windows 10 Store.”).

³⁸¹ *See* Trial Tr. (Sweeney) 123:15–124:5, 262:19–263:11, 263:22–265:4, 265:7–11; Trial Tr. (Allison) 1199:15–1200:1, 1243:3–11. Among those mentioned was Itchio.io. With respect to this app, Apple's counsel alluded to certain sexually explicit video games (*i.e.*, “Sisterly Lust”) offered by Itchio.io. Given that the corresponding materials (*e.g.*, storefront game pages) were not submitted to the Court, the Court cannot conclude one way or another whether this particular game, or other games offered on Itchio.io, are as problematic as so alluded or suggested by Apple's counsel. Nonetheless, the Court finds that Apple's questioning and Mr. Allison's answers thereto illustrate some problems that may occur when permitting “stores within stores”: namely, disparate guidelines and policies, and the difficulty of reviewing materials hosted by third parties. *See* Trial Tr. (Allison) 1257:5–1258:8, 1258:21–1259:22, 1280:20–1281:22.

³⁸² *See* Ex. Expert 8 (Schmalensee) ¶ 41, Ex. 1.

c. Console Gaming

There are three recognized market participants in the console gaming arena: Microsoft Corporation Xbox Series X and S (formerly Microsoft Xbox One), Sony Corporation PlayStation 5 (formerly PlayStation 4), and Nintendo Co. Ltd. Switch.³⁸³ The evidence reflects that the market is split between two similar products (*i.e.*, the Xbox and the PlayStation) fiercely competing on both power, graphics, processing, and speed, and one product (*i.e.*, the Switch) that has innovated to compete on mobility.³⁸⁴

These three devices are generally considered “single purpose” or “special purpose” devices—as compared to mobile and PC devices, which are more general-purpose devices. In other words, these gaming consoles are generally made for the narrower purposes of gaming or entertainment (*e.g.*, video or music streaming).³⁸⁵ These platforms “are designed to give you a gaming experience. [For example, p]eople buy an Xbox because they want to play games.” In contrast, mobile and computer devices are general-purpose devices because there is a “wide, wide variety” of “different ideas and applications that can come through it.” As a special purpose device, for instance, Microsoft’s Xbox console is designed and marketed “to optimize the game experience,” and it cannot perform many of the functions that mobile devices can, such as requesting a rideshare, taking a photo, or obtaining driving directions.³⁸⁶

Both the Xbox Series X and S and the PlayStation 5 were released in 2020, with their prior models (the Xbox One and PlayStation 4) released in the 2010s. With respect to these two devices, both have substantially similar hardware that renders cutting edge graphics similar to those on certain PCs and desktops, and can render and run more realistic simulations than would be possible on mobile or other devices.³⁸⁷ Indeed, the PlayStation and Xbox have the same reliance on additional peripherals and equipment: namely, a television or screen, speakers, and a

³⁸³ See DX-5523.002 (defining console gaming as “[g]ames and services [offered] on home consoles (*e.g.* Xbox and PlayStation) and handheld/hybrid consoles (*e.g.* Nintendo Switch)).

³⁸⁴ See generally PX-2776 (Nintendo Switch); PX-2777 (Sony PlayStation 5); PX-2778 (Microsoft Xbox Series X).

³⁸⁵ See Trial Tr. (Sweeney) 138:23–25; Ex. Expert 1 (Evans) ¶¶ 50, 53–54; Trial Tr. (Evans) 1459:5–1461:20; *see also* Ex. Expert 6 (Hitt) ¶ 117; Ex. Expert 7 (Lafontaine) ¶ 34; Trial Tr. (Wright) 556:4–5, 583:8–13; Trial Tr. (Grant) 697:19–20.

³⁸⁶ See Trial Tr. (Wight) 535:20–536:12, 555:24–556:5, 557:10–15.

³⁸⁷ See Trial Tr. (Sweeney) 139:17–23, 145:18–20, 145:24–25.

controller.³⁸⁸ Both devices further require a constant connection to a power outlet, as well as, for some games, access to the Internet via WiFi or ethernet cable.³⁸⁹

Games developed for the Xbox and PlayStation leverage the competitive advantages inherent in these systems. For example, with respect to Xbox console games, “developers have taken a design choice to build an experience that they want to have rendered . . . with all the compute power, graphic fidelity, that this box provides.” This contrasts to mobile games, which are generally designed for a “more casual” gaming experience and the “vast majority are free to play and then have in-app purchase mechanisms as part of them.” In some instances, console game titles that are rewritten to run on iOS devices can be “different games” in that “[t]hey feel different,” “operate different[ly],” and could be “leveraging the marketing brand of that,” while being a “different version of the game that is written to run on [mobile devices].”³⁹⁰

The remaining player in the console gaming market, the Nintendo Switch uniquely competes on a separate ground: mobility.³⁹¹ Nintendo introduced the Switch, a quasi-mobile device, in 2017, and the eShop became the Switch’s online store.³⁹² Unlike the PlayStation and the Xbox, the distinguishing feature of the Switch is that it can be played in *either* a conventional console manner (*i.e.*, with a separate screen and controller) *or* a mobile handheld fashion (*i.e.*, in a modified tablet form, whereby the separating controllers attach to the sides of the tablet).³⁹³ Because of this mobility, there is substantial overlap in the design, form, and function with

³⁸⁸ See *id.* 138:18–21 (“A console is a fixed function device as [it is] typically plugged into a television and controlled using a game controller or a joystick.”); Trial Tr. (Wright) 537:10–13.

³⁸⁹ See Trial Tr. (Wright) 536:13–537:13.

³⁹⁰ See *id.* 539:22–25, 636:11–17.

³⁹¹ The Court notes a glaring lack of evidence on the Nintendo Switch, and its previously related but distinct products, in the record. Indeed, the Court is aware that both Sony and Nintendo, at one point, sold separate handheld gaming devices (*e.g.*, Nintendo Gameboy, Nintendo DS, Sony PlayStation Vita). No evidence or explanation was provided on what occurred with these products or the handheld device market, though, the Court surmises that the rise of the mobile gaming market likely subsumed the handheld gaming market and perhaps led to Nintendo’s decision to switch to mobility as a competitive edge for the Switch. Regardless, the Court notes the lack of evidence on this point, as well, as the Nintendo Switch generally, where evidence is limited to third-party testimony and certain Nintendo documents. Indeed, neither party called a Nintendo affiliated witness in this action to inquire on issues of competition in the general or console gaming market. Instead, the Court is left with a limited record on these matters.

³⁹² See Trial Tr. (Grant) 696:8–11; Ex. Expert 6 (Hitt) ¶ 190 & Fig. 1.

³⁹³ See generally PX-2776 (Nintendo Switch). Although not reflected in the record, the Court notes that one version of the Switch, the Switch Lite, can *only* be played in a mobile and handheld manner.

mobile devices with respect to gaming.³⁹⁴ Moreover, Mr. Sweeney twice stated in a matter of minutes that the performance of *Fortnite* on the Switch and smartphones are, in fact, “similar.”³⁹⁵ The only identified difference between the Switch and certain mobile devices is that, like the PlayStation and Xbox, a Switch must also rely on a WiFi connection.³⁹⁶ However, not all tablets, including some iPads, have or permit cellular connection, and must similarly rely on WiFi.³⁹⁷

Based on the business models and choices undertaken by the players in the console gaming market, both Microsoft and Sony are in more direct competition with each other, while the Nintendo Switch remains more distantly in the competitive orbit of these two devices. Microsoft considers Sony’s PlayStation a “direct competitor” to the Xbox because of the similarities in the hardware of these devices. In contrast, Microsoft considers the Switch as competition to the Xbox but “to a *much* lesser extent.”³⁹⁸ In relation to other devices, Ms. Lori Wright, Microsoft’s Vice President of Xbox Business Development, noted that Microsoft does not consider cellular or tablet devices such as the iPhone or iPad as competitors to the Xbox.³⁹⁹

Moreover, on the limited record before the Court, Microsoft and Sony appear to have a different business model whereby digital downloads, including games, in-app purchases, and

³⁹⁴ See Trial Tr. (Grant) 696:6–11 (describing similarities in screen size, portability, and other features between smartphones and the Switch); Ex. Expert 6 (Hitt) ¶¶ 87–91.

³⁹⁵ See Trial Tr. (Sweeney) 139:17–18 (“The performance of *Fortnite* and Nintendo Switch is similar to many smartphones.”); *id.* 140:8–9 (“The performance of *Fortnite* on smartphones and Switch is similar.”).

³⁹⁶ See Trial Tr. (Evans) 1459:5–1461:20; Trial Tr. (Sweeney) 140:9–11.

³⁹⁷ The Court notes that Epic Games’ proposed product market includes both iPhone *and* iPad devices, without regard to whether these iPad devices are limited to those relying on cellular connections or not. Indeed, notwithstanding the distinction raised by some Epic Games witnesses, Epic Games states in its final proposed findings of facts and conclusions of law that “[t]here are no differences between iOS and iPadOS that are relevant to the facts herein.” Epic Games FOF ¶ 25 n.1.

³⁹⁸ Trial Tr. (Wright) 537:14–21 (emphasis supplied). Indeed, Ms. Wright only identified the Switch as a competitor after having been asked the substantively same question for a second time, wherein she identified the Switch as competition but qualified her answer by noting that the Switch competes “much less” than the PlayStation against the Xbox. *Id.* This appears to be in keeping with internal Microsoft documents reviewing its competitors, where numerous PlayStation games are identified over two-thirds of the page, in contrast to Switch games, which are limited primarily to just Nintendo published games and are relegated to the remaining third of the page along with games launched on PC. See PX-2476.006.

³⁹⁹ Trial Tr. (Wright) 537:22–538:2. There is no evidence one way or the other in the record to confirm whether Sony would have a different view than Microsoft on this question of competition.

downloadable content, and physical game purchases effectively subsidize the initial cost of the gaming device. There is some evidence that console manufacturers, especially Microsoft and Sony, sell hardware at a loss and recoup those losses through the subsequent sale of software.⁴⁰⁰ This is in contrast to the limited documents and testimony that are in the record which reflect that Nintendo makes a profit on the sale of hardware, *i.e.*, the Switch.⁴⁰¹

Despite these differences, there are similarities amongst the players in the console gaming market. Like iOS devices, the Switch, PlayStation, and Xbox have also adopted “closed platforms” or “walled gardens” as Nintendo, Sony, and Microsoft do not allow users to install software on their consoles outside of the platform’s official store.⁴⁰² Moreover, unlike mobile gaming devices, console gaming platforms use similar controllers consisting of analog sticks, d-pads, and buttons located on the face and edges of the controller.⁴⁰³

The standard commission rate across these console platforms is, like both the App Store and Google Play app store, 30%.⁴⁰⁴ Although Epic Games witnesses and other third-party witnesses testified that console makers regularly engage in negotiations with developers and secure terms that factor into the overall value that the app developer receives.⁴⁰⁵

Compared to mobile gaming and PC gaming, the gaming revenue generated by console games in 2019 derived overwhelmingly from pay-to-play or buy-to-play games, as opposed to

⁴⁰⁰ See Trial Tr. (Wright) 551:24–13; Trial Tr. (Weissinger) 1350:18–1351:7; Trial Tr. (Evans) 1476:2–8. Apple contests this assertion where Epic Games did not seek admission of any documents supporting that testimony, and no such documents are otherwise in the record. See Trial Tr. (Evans) 1736:3–20. The Court however finds Ms. Wright credible in her statements, especially wherein they are not particularly flattering revelations for her employer, Microsoft (*i.e.*, that Microsoft does not make a profit on the sale of the Xbox hardware).

⁴⁰¹ DX-5322; *see also* Trial Tr. (Evans) 1736:21–24.

⁴⁰² See Trial Tr. (Sweeney) 180:17–184:9; Trial Tr. (Wright) 554:10–16. The Court notes that Mr. Sweeney testified that he understood that Nintendo permitted “Switch games to be sold by at least one third-party retailer digitally.” See Trial Tr. (Sweeney) 239:18–240:3. Mr. Sweeney did not identify this third-party retailer, nor is there any further evidence in the record reflecting any arrangement between Nintendo and a third-party with respect to a third-party digital store.

⁴⁰³ Trial Tr. (Grant) 695:4–9; *see also* PX-2274.001.

⁴⁰⁴ See Ex. Expert 6 (Hitt) ¶¶ 161–162, 256; Ex. Expert 8 (Schmalensee) ¶ 41, Ex. 1; DX-3955.003; *see also* DX-3582.004–.005; DX-3464.012, .027, .031; Trial Tr. (Sweeney) 142:19–143:1, 161:13–15; Trial Tr. (Weissinger) 1349:14–23.

⁴⁰⁵ Trial Tr. (Sweeney) 310:1–17; Trial Tr. (Schmalensee) 1958:1–3; Trial Tr. (Wright) 586:11–21.

free-to-play or freemium games.⁴⁰⁶ Demographics show that millennial male gamers are most often playing on a gaming console, with an interest in playing action games.⁴⁰⁷

d. Cloud-Based Game Streaming

A newer and ongoing innovation in the gaming industry includes cloud-based game streaming platforms. The companies involved in cloud-based game streaming include: Google Stadia, Nvidia's GeForce Now, Microsoft Xbox Cloud Gaming, and Amazon's Luna. Cloud-based game streaming services provide the experience of playing a game on a device that is being streamed from a remote data or server center. Unlike the other video game submarkets, cloud-based game streaming is not tied to a single device, and is instead a multi-platform service. Indeed, Microsoft has recognized in its 10-K that its Xbox Live services face competition from Amazon, Apple, Facebook, Google, Tencent, and these new "game streaming services."⁴⁰⁸

In light of the unique and innovative nature of cloud-based game streaming, certain issues arise that do not otherwise arise as compared to other gaming submarkets. Game streaming operates similarly to audio and television/film streaming, but further requires the transmission of user input in the game to a remote data center which then processes and renders the user's inputs and choices in the game back to a user's device through an audio and visual stream. The service at minimum requires some wireless or cellular connection to maintain connectivity to these remote data centers. Given this technological framework, the most significant of these issues is the issue of latency. As Mr. Aashish Patel, the Director of Product Management for Nvidia's GeForce Now, describes it, latency "[a]t a high level, [i]s from when you trigger an action to when you see the effect of an action."⁴⁰⁹ In other words, latency is the time it takes between when an action is input into a controller or device and when the change is reflected in game. Methods reducing latency ensure there is no lag or delay in displaying the changes on screen or in game. Higher latency can impact game play, especially in certain competitive games.⁴¹⁰

⁴⁰⁶ See DX-5523.002, .053.

⁴⁰⁷ See generally DX-4217.

⁴⁰⁸ Trial Tr. (Sweeney) 135:21–136:5, 177:18–178:14, 256:16–25; Trial Tr. (Cook) 3866:14–22; Trial Tr. (Hitt) 2119:20–2120:14; Trial Tr. (Patel) 422:1, 442:5–12, 471:10–472:21; Ex. Expert 6 (Hitt) ¶ 144; Ex. Expert 6 (Schmalensee) ¶ 120; Trial Tr. (Wright) 647:5–13. The Court notes that Mr. Patel's allegiances became quite apparent when he reluctantly, and hesitantly, equivocated in answering basic questions on cross examination with respect to cross-platform playing of games. Trial Tr. (Patel) 463:18–464:16. The Court accepts his testimony with some discounting based on his bias for controversial issues.

⁴⁰⁹ Trial Tr. (Patel) 433:13–17.

⁴¹⁰ *Id.* 422:2–7, 434:18–23 ("Depending on the user and the game, the user may feel uncomfortable with the latency, doing an action and seeing the action performed later, it could result in if they are in a racing game, turning too late, for example."), 435:5–11 ("Depending on

The Court summarizes the game streaming services from the record:

Google Stadia is a game streaming service launched in November 2019 and is available on iOS through web streaming. Stadia offers a subscription model that provides access to a library of games.⁴¹¹

Nvidia GeForce Now launched in February 2020 and is also accessible through iOS as well as through the GeForce Now client. Nvidia GeForce Now allows users to stream games previously acquired or purchased from digital game distribution platforms (such as Steam or Epic Games Store). The GeForce service played on iOS as a web-based service has received mostly positive reviews and has performed excellently even on older devices, notably for which Apple receives no commission or payment. By the third quarter 2020, GeForce had 5 million users with a goal of doubling that within a year. GeForce also has doubled its price for new users. Mr. Patel also raised the issue of the need for an Internet connection and capacity issues for streaming, but those issues arise regardless of whether GeForce is offered as a native app or a web app. With expanding bandwidth over the past five years, the overall streaming experience is now vastly better.⁴¹²

Microsoft Xbox Cloud Gaming with Xbox Game Pass Ultimate (formerly known as Project xCloud) is another subscription-based streaming service that allows users to stream games to their Android devices. Xbox Cloud Gaming became available for selected Android devices and was recently launched on iOS, after some support from Apple engineers, in beta version. Press reviews say that the Xbox Cloud Gaming experience is very strong on PC and iOS. Ms. Wright states that it is a “great sign” for the prospects of Xbox Cloud Gaming that the beta is expanding. Epic Games does not support Xbox Cloud Gaming because it views “Microsoft’s efforts with xCloud to be competitive with Epic Games’ own PC offerings.”⁴¹³ The Court understands that Epic Games therefore views certain multiplatform game streaming services as a threat to its currently single platform game store.

The Court notes that with respect to the iOS platform, both Nvidia and Microsoft maintain web apps instead of native apps. This is due to Apple’s guidelines and rules prohibiting stores within applications and requiring the submission of each individual game to the App

the game, yes, there can be competitive disadvantages for a user with higher latency.”); Trial Tr. (Sweeney) 135:18–136:9; Trial Tr. (Grant) 712:17–714:10.

⁴¹¹ Trial Tr. (Sweeney) 256:16–25; Trial Tr. (Fischer) 901:19–21, 902:8–11; Ex. Expert 6 (Hitt) ¶ 144.

⁴¹² Trial Tr. (Sweeney) 137:12–16; Trial Tr. (Patel) 422:12–15, 425:4–11, 456:15–24, 458:6–18, 459:18–460:5, 460:8–461:3, 464:11–465:1, 466:18–24, 469:18–23, 470:4–15, 471:25–472:21, 473:24–474:13, 475:5–15, 476:12–19 (acknowledging that “Nvidia and GeForce Now are not in the middle of that transaction” and receive no commission and instead all of that revenue goes to the developer).

⁴¹³ Trial Tr. (Wright) 565:20–567:19, 609:22–11:7, 611:21–621:1, 613:11–12; Ex. Expert 8 (Schmalensee) ¶ 120; Ex. Depo. (Kreiner) 106:19–107:6.

Store. Both companies would prefer to provide their services as native apps instead of web apps due to the ease of both optimizing the experience for game streaming users on devices and reducing latency. Neither company, however, provided evidence or testimony on the relative differences in latency between web apps and native apps, even as to the iOS platform's Safari web browser. The Court cannot otherwise discern based on the limited record whether being limited to web apps has otherwise affected these services—especially considering the foregoing evidence showing positive reception among consumers and the industry to both services on the iOS platform.⁴¹⁴

4. Competition Among Platforms and Findings of Relevant Product Market

Given the multitude and diversity of platforms available to consumers, it is not surprising that there is, at a base and general level, *some* competition amongst them in the overall video game market. As Mr. Sweeney remarked publicly in 2012:

[W]e have a lot of platforms coming together. There are the tablet platforms, there are the smartphone platforms, and computers, you know, PC and Macintosh, and then there are consoles, Xbox 360, PlayStation, Wii, and some new handheld dedicated gaming devices, and God knows what else.

This is too many platforms. And we're seeing now, iPad sales have surpassed the sales of desktop PCs. That's a real revelation to me. This is a product that wasn't invented until a few years ago, and it's basically supplanting the personal computer industry as we know it.

Over time, these platforms will be winnowed down into a much smaller set of competing platforms. You know, there might be one or two or maybe three winners worldwide across everything—computers, game platforms, smartphones.

⁴¹⁴ Trial Tr. (Patel) 427:9–428:6, 429:11–430:2, 433:13–434:17, 438:11–14; 530:24–531:22; Trial Tr. (Wright) 577:3–579:10. Mr. Patel only characterized the additional latency as a result of using web apps as “a bit higher” than native apps, but otherwise provided no relative or quantitative comparison. Trial Tr. (Patel) 434:16–17. Indeed, Mr. Patel's later testimony hedged as to the actual latency problems with web apps, and he further did not identify any specific latency issues with the iOS platform's Safari web browser. *Id.* 530:1–16 (responding that with web apps, “you *could* argue that in some instances, it's worse than native application decoding,” and web apps “*could*” increase latency (emphasis supplied)). Mr. Patel later conceded that regardless of whatever app model they used (e.g., web app or native app), “[t]he majority of the process is the same.” *Id.* 532:2–9.

So we should expect a lot of consolidation here, and winners and losers according to who picks the right directions and executes successfully on them.⁴¹⁵

According to Apple, it faces intense pressure as it competes for developers and users across these platforms.

In a general sense, consumers have a choice of devices and transaction platforms through which to acquire, modify, and play games. Apple’s mode of competing resorts to its historic model: user-friendly, reliable, safe, private, and secure. Mr. Sweeney does not dispute that “what is on a particular store is part of the competitive landscape among different stores in which customers make decisions between stores based on the quality, selection, and other policies of stores.” Similarly, developers also have a choice among the distribution channels, including various transaction platforms, through which to distribute their apps to consumers. In some measure, Apple must likewise make its platform attractive to developers.⁴¹⁶ Given that Apple built and modeled the App Store in part on its gaming competitors (e.g., Nintendo, Sony, and Microsoft), harnessing these competitors’ in-app purchasing systems from the gaming context,⁴¹⁷ it is not surprising that Apple now faces competition amongst these very same players.⁴¹⁸

Of course, the Court must determine where the *actual* competition lies between these platforms based on the current state of play in the overall market. This is a close question where the general video game market appears to be evolving and dynamic. While there is some competition amongst the players in the general video game market, the Court cannot say that this overall competition is sufficient for purposes of defining a relevant product market—at least not at this time.

What makes this determination difficult is that the market appears to be somewhat in flux. With the recent success of truly cross-platform games like Microsoft’s *Minecraft* and Epic Games’ own *Fortnite*,⁴¹⁹ these disparate platforms, each with their own unique and competitive advantages, are truly competing for consumers who wish to consume these increasingly popular

⁴¹⁵ DX-3768 at 26:1–23; Trial Tr. (Sweeney) 243:10–244:9.

⁴¹⁶ Trial Tr. (Schiller) 2748:6–24; *id.* 2867:9–20 (describing the App Store’s competition with Steam); Ex. Expert 8 (Schmalensee) ¶¶ 122–126; Trial Tr. (Sweeney) 261:19–23; Trial Tr. (Hitt) 2130:5–7; *see also* Trial Tr. (Schmid) 3240:1–7; DX-4399.046–.054 (Apple has also benchmarked the App Store against Android Market, Google Play, and other competitors in a 2017 presentation, where it listed Google Play in the “Competition” section, along with Facebook Messenger games, publishers, platform marketplaces, and social platforms).

⁴¹⁷ *See generally* PX-0888.

⁴¹⁸ DX-4178.008.

⁴¹⁹ The record demonstrates that the App Store is one of several competing platforms, such as the PlayStation and Xbox, with respect to cross-platform play for *Fortnite*. Trial Tr. (Sweeney) 236:19–237:2; DX-3125.005.

cross-platform games and any transactions made therein. Indeed, video games can and are able to be ported across multiple devices.⁴²⁰ However, not all games are like *Minecraft* or *Fortnite*; the market still reflects that video games are, for the most part, cabined to certain platforms that take advantage of certain features of that platform, such as graphics and processing, or mobility.⁴²¹ The record reflects that the industry players are only slowly and recently reacting to compete against the wider gaming platforms.

With cross-platform games like *Fortnite* available on multiple devices, these platforms are truly competing against one another for these in-app transactions. For instance, an internal Epic Games email from September 2018 notes that “purchase behavior may have changed with the addition of mobile, especially Apple and more recently Android, where users are just logging onto their mobile app to purchase.” In other words, “most players are still playing on PC/Epic platform[s] as they did before, but purchasing on other platforms like mobile because it may be easier and more convenient [i.e.] when the store updates.”⁴²² This is despite the fact that iOS *Fortnite* players consisted of only approximately 10% of daily active users, and *Fortnite* players generally prefer playing on alternative platforms.⁴²³

In response to this exact scenario, where gamers play on one platform but spend on another, some other platform owners have enacted substantive policies regarding cross-wallet and cross-play restrictions. Sony, for instance, enacts a cross-play policy that compensates Sony where players spend on other platforms but primarily game on Sony’s PlayStation platform.⁴²⁴ Meanwhile, Sony and Switch have enacted policies that limit the cross-wallet functionality across platforms.⁴²⁵ Also unlike certain consoles, Apple does not require price parity; that is, developers are free to price their in-app content on apps downloaded from the App Store higher than the same content sold through other platforms.⁴²⁶

While these policies and cross-platform games might evidence some convergence of competition amongst them at some point in the future, the relevant product market does not appear to be so wide as to include all platforms at this time. This is especially so given the distinct submarkets discussed above: namely, mobile gaming, computer gaming, and console gaming.

⁴²⁰ See generally Trial Tr. (Grant) 671:2–673:20.

⁴²¹ See generally *supra* Facts §§ II.B.1–2, II.D.3.

⁴²² DX-3867.

⁴²³ See Trial Tr. (Weissinger) 1346:18–1347:1; DX-3233.009.

⁴²⁴ DX-3094.006.

⁴²⁵ See Trial Tr. (Sweeney) 197:1–18, 238:9–239:17; Trial Tr. (Schmid) 3208:8–16; Ex. Depo. (Kreiner) 83:12–16.

⁴²⁶ See Trial Tr. (Schiller) 2819:18–2820:2; DX-3582.003.

The question remains however on where (i) the Nintendo Switch, which is distinctly both a hybrid console and mobile gaming device, and (ii) game streaming services, a multiplatform game service also available on iOS platforms, fall in the general market and the above submarkets. Facially, the inclusion of the Switch and game streaming services in a relevant product market defined as mobile gaming transactions has logical appeal. The Switch is essentially a game specific tablet with detachable controllers on its sides. Its inclusion would make logical sense where tablets are also included in the relevant product market. Witnesses also confirmed that games (including *Fortnite*) for both the Switch and mobile devices operate substantially the same on both devices. Moreover, what evidence exists in the record shows that the Switch generally competes significantly differently as compared to the other two console players—the PlayStation and Xbox.

The inclusion of game streaming services has similar logical considerations. Because such services are multiplatform, they can reach the same audience of consumers on the iOS platform as the App Store can by virtue of their design. Specifically, whether by native app or web app, game streaming services are just as available to consumers on the iOS platform as the games are on the App Store. These services essentially compete with the wider market given the lack of a need for any corresponding device. Indeed, due to the multiplatform nature of such services, even players in other submarkets, including Epic Games, have come to view such services as a competitor in their established market spaces.

Despite the foregoing, neither the Switch nor game streaming services are appropriately part of the mobile gaming market—at least not at this time. First, as previously noted, the record is limited as to both Nintendo and the Switch. Nonetheless, the Court notes that there is in evidence one real world example that shows that the Switch’s mobility competes against iOS devices for gaming: the introduction of *Fortnite* on the Switch. As the experts’ analyses show, the introduction of the Switch shows both substitution and complementary play without a definitive answer. *See supra* Facts § II.B.2.

Second, both products are too new for a determination of whether they should or should not be included in the relevant product market. The Switch and especially game streaming services are relatively new products in the market. Indeed, Nvidia’s GeForce Now service only launched months before the filing of this action, and Microsoft’s service remained in beta testing at the time of the bench trial. It is unclear at this time whether consumers will or do consider these products reasonably interchangeable and substitute in sufficient numbers between the competing products already in the mobile gaming market.

In sum, in light of the lack of evidence in the record, and the recent introduction of the Switch and game streaming services to the market, the Court declines to include either device or service in the relevant product market for mobile gaming transactions. While the record does not reflect that these products are appropriately included in the relevant product market at this time, the Court does find that these products evidence, at a minimum, market entrants into this mobile gaming space. Whether these entrants will occupy the same space as Apple and Google remain, however, to be seen by both consumers and developers.

Thus, the Court concludes that the competition lies within the smaller recognized mobile gaming transactions submarket, however, this submarket does not include the Switch or game streaming services.

E. Apple's Market Share

For the reasons set forth above, the Court concludes that the competition lies within the smaller recognized mobile gaming transactions submarket, however, this submarket does not include the Switch or game streaming services. The Court next calculates Apple's market share.

The *only* evidence of market share in the proposed market concerning video gaming comes primarily from Apple's expert witness, Dr. Hitt.⁴²⁷ As discussed, Apple's proposed definition of the market includes all video game platforms, which the Court rejects as the relevant market. Consistent with Apple's proposal, but inconsistent with the Court's finding that mobile gaming is the relevant product market, Dr. Hitt's analysis relies upon the assumption that the App Store has many competitors, including other game transaction platforms, for mobile, PC, and console, as well as game streaming services, and limits the scope to the United States.⁴²⁸

Since data on the number of game transactions is not readily available, Dr. Hitt's analysis uses the dollar value of game transactions facilitated as a proxy for the most appropriate measure for estimating market share. To reach his opinion he analyzes: (i) the total revenue for digital game transactions on the App Store in the United States; and (ii) the total revenue for digital game transactions across all digital game transaction platforms in the United States.⁴²⁹ Again, Dr. Hitt's analysis does not narrow in on the mobile gaming market and Apple's market position therein. Based on his analysis and his review of the relevant evidence, Dr. Hitt finds and concludes that Apple's video game market share based on total revenue from digital game transactions is 37.5%.⁴³⁰ Based on his calculations, Dr. Hitt concludes: (i) that this video game market share is inconsistent with Apple's ability to exercise market power; and (ii) that this lack of concentration in the video game market suggests Apple does not possess monopoly power in the relevant product market.⁴³¹ While Dr. Hitt's report and analysis aids the Court, it is overbroad for purposes of the Court's finding that the market is limited to mobile gaming.

Despite the limitations of Dr. Hitt's analysis, a similar calculation based on evidence in the record reveals a much more significant *mobile* gaming market share. Apple's internal business records⁴³² show a consistent belief that Apple's market share of the global video gaming market increased over time beginning in 2015 with 18%; 2016 with either 21.8% or 23%; 2017

⁴²⁷ Ex. Expert 6 (Hitt) ¶ 117.

⁴²⁸ See *supra* Facts § II.D.; Trial Tr. (Schiller) 2867:1–20; Trial Tr. (Cook) 3865:23–3867:5.

⁴²⁹ See Ex. Expert 6 (Hitt) ¶¶ 137–138.

⁴³⁰ *Id.* ¶¶ 8, 117, 123–128.

⁴³¹ *Id.* ¶¶ 138, 140–141.

⁴³² The Court relies on Apple's business records as admissions.

with either 24% or 27%; 2018 with 23.8%; 2019 with 23.9% or 25%; and 2020 forecasted at a range between 24.7% and 31%.⁴³³

The Court has the most evidence for the year 2017. Using Apple's internal documents the Court is able to calculate Apple's market share at 57.1% in the global *mobile* gaming industry. The Court reaches that value by taking Apple's own internal records for 2017 which show Apple's internal calculation that it controls 24%⁴³⁴ of the global video gaming market and dividing the number by 42%⁴³⁵ which reflects Apple's belief of the portion of the *mobile* gaming market relative to the global video gaming market (24% divided by 42% equals 57.1%).

Using this same methodology, the Court can calculate Apple's market share in the *mobile* industry before 2017, as 52.9% in 2015 and 54.5% in 2016. This computation is consistent with a view that the market share was less than 57.1% in 2017.⁴³⁶

Similarly, for 2020, Apple estimates that its own global market share in the wider video gaming industry is 28.2%, and cites on its internal business record to an external Newzoo report that states that mobile gaming (including mobile and tablets) accounted for 49% of global

⁴³³ Compare four internal forecasting documents, namely, DX-4178.008 (2017 Review), PX-0602.027 (2018 Review), PX-0608.014 (2019 Review), and PX-2302.022 (forecasting 2021 and 2020).

⁴³⁴ See PX-2302.022 (reporting 24% market share). The Court notes a discrepancy between two sets of presentations calculating market share from 2015 to 2020 in the wider video gaming industry. The Court notes that the figures found in the most recent Apple presentation, along with figures found in the 2019 review (PX-0608), appear to match and correspond with third-party data found elsewhere in the record. See DX-3248. For that reason, the Court concludes that these figures in the most recent presentation are the more correct and updated versions. The market share rates found in the other (generally older) presentations appear to use estimates instead of the actual total revenue in the video game industry for certain years resulting in a lower total annual amount, which appears to inflate Apple's market share in these other presentations. Compare DX-4178.007 (2017 presentation, stating 109 billion in total game revenue in the entire industry in 2017) with DX-3248.008 (2018 market report, stating 121.7 billion in total game revenue in the entire industry in 2017).

⁴³⁵ Compare DX-4178.007 with DX-3248.008. The comparison shows a discrepancy in the portion of the mobile gaming market for the year 2017: namely Apple reports it as 42% in its presentation and third-party Newzoo reports it as 46% in its 2018 Global Games Market Report. The delta between these two figures is a few percentage points: using the third-party Newzoo figure in the Court's methodology, Apple's global market share is computed at 52.1% for 2017.

⁴³⁶ Relying on the same documents, for 2015, the Court takes Apple's 18% market share divided by 34% of the mobile share of the global market. For 2016, the Court takes Apple's 21.8% market share divided by 40% of the mobile share of the global market.

gaming revenue in 2020.⁴³⁷ Using these figures and the same methodology as above, Apple would have 57.6% market share in the global mobile gaming industry in 2020.⁴³⁸

The Court understands that the market share would likely be less if the Switch were included in the relevant product market.⁴³⁹ However, the record is bare of evidence and, in any event, the new market entry would not have had such a compelling entrance as to discount the market share to under 30%.⁴⁴⁰ Nonetheless, even assuming the market were limited to both mobile gaming *and* console gaming (including the Switch, PlayStation, and Xbox), Apple would still have, at a minimum, market power.⁴⁴¹ For the years in the record, the Court's methodology based upon the records shows that Apple would have a market share of such a defined global

⁴³⁷ The Court notes that the 2020 Newzoo report is not in evidence, however, it is found as a "Reference" citation at the bottom of Apple's presentation. *See* PX-2302.022. These third-party references are often noted in presentations but only a few source documents are in evidence. The Court relies upon the reference because Newzoo is a credible third-party report that others in the industry rely upon.

⁴³⁸ The same level of precision does not exist for 2018 and 2019 given the trial record. While the Court has evidence of Apple's market share in the wider gaming market and for certain years for the *mobile* gaming market, there is no discrete information or evidence for which it could calculate or find Apple's market share within *mobile* gaming for the years 2018 and 2019.

⁴³⁹ For instance, the Court lacks any revenue specific information regarding the Switch with which to include in any market share determination. As to game streaming services, given the only recent introduction of such products to market, the Court would expect any inclusion of such services to have a minimal impact, if any, on the overall market share calculations in this section.

⁴⁴⁰ *See* Trial Tr. (Bornstein) 4091:4–4092:3. Given the Court did not adopt the parties' market definitions, Epic Games' counsel would not commit to whether tablets would be included in that hypothetical market. Assuming a mobile and handheld device market as the relevant market, there are numerous tablet platforms and at least one mobile gaming console platform (Nintendo Switch) that would have to be included in such a market.

⁴⁴¹ The Court also assumes for purposes of this analysis that the video game revenue cited in the corresponding Newzoo report is all attributable to digital game transactions. The Court notes that this overinclusion of non-digital game transactions *and* of the PlayStation and Xbox would depress Apple's market share if the Court were to only include digital game transactions attributed to the Switch. Nonetheless, the purpose of this analysis is to demonstrate that Apple retains market power above 30% even with the overinclusion of these additional platforms and non-digital transactions.

video gaming market (*e.g.* mobile and console) of 32.9% 2017, and of 31.1% in 2016.⁴⁴² For the most recent year 2020, based on estimated and projected revenue and on the cited 2020 Newzoo report, Apple's market share would be 36.6% of such a defined video gaming market.

III. PROPOSED GEOGRAPHIC MARKET AND FINDING

The parties offer differing perspectives on the geographic market. Epic Games argues for a global market, excluding China, and Apple asserts a domestic market.

With respect to its theory, Epic Games argues for a global market because smartphones, and thereby, the smartphones' operating system, are sold globally. Moreover, smartphones generally work regardless of the location with the exception of China where the operating systems are, in fact, different because they are installed by original equipment manufacturers in China.⁴⁴³ Apple does not challenge the *geographic* market for smartphones, although for the reasons set forth above, it heavily contests the notion that a separate market exists for operating systems.

By contrast, Apple focuses on app gaming transactions arguing that the geographic market is domestic. Apple highlights that consumers access the App Store with country-specific digital storefronts which means that consumers enter into transactions through a digital storefront based on their home country. Generally, Apple customers do not have access to foreign storefronts, and cannot readily switch between storefronts outside of their home country. The same is true for customers in foreign countries.⁴⁴⁴ The Court understands that many console and other game transaction platforms similarly organize their stores with geographic overlays.⁴⁴⁵ Providers have created impediments to switching geographic registration, such as prohibiting it as part of the terms of service, requiring country specific credit cards, and installing software which may make the app inoperable.⁴⁴⁶

⁴⁴² The Court notes that the Switch was released in March 2017, and thus, the inclusion would only affect the years 2017 and later. The Court discloses that Apple's market share for 2015 would be 27%.

⁴⁴³ Ex. Expert 1 (Evans) ¶¶ 70–71; Trial Tr. (Cook) 3970:10–16; *see also* Trial Tr. (Cook) 3942:18–19, 22 (agreeing that “in China, the iCloud service is operated by a Chinese company”).

⁴⁴⁴ Trial Tr. (Schiller) 2754:20–2755:9 (“It’s how we’ve been told we need to structure the stores.”).

⁴⁴⁵ *Id.* 2754:14–2755:15; Ex. Expert 7 (Lafontaine) ¶ 9; Trial Tr. (Lafontaine) 2066:24–2067:6; *see also* Trial Tr. (Evans) 1565:12–14.

⁴⁴⁶ Ex. Expert 7 (Lafontaine) ¶ 91; DX-4931.001; DX-4920.001 (noting for Microsoft that “[i]f you change your country or region in Microsoft Store, *the stuff you got in one region might not work in another*. This includes: Xbox Live Gold, Xbox Game Pass, Apps, games, music purchases, and movie and TV purchases and rentals”).

Geographic constraints are less pronounced for developers. Foreign and domestic developers can publish on both foreign and domestic platforms. However, they can only access the consumer on the consumer's own domestic storefront.⁴⁴⁷ Apple principally relies on Dr. Lafontaine to argue that the “competitive conditions each platform faces varies from country to country. The set of apps available across the world is not uniform. So one accessing the App Store's U.S. storefront would not have an identical selection of game apps to a consumer accessing a foreign storefront. Moreover, different countries feature different slates of competing platforms, with differing relative market shares. All of the above factors affect demand and substitution, creating different market conditions in each country.”⁴⁴⁸ However, the factual basis for her opinion is weak.⁴⁴⁹

The Court finds Apple's factual basis for its assertion to be weak. At least for purposes of this case, Apple's restrictions appear to be imposed by Apple, rather than by market forces. Importantly, the Court finds more persuasive that Apple actually treats app distribution as a global enterprise. Its rules and guidelines apply globally to all storefronts, the business development team engages with developers globally, the DPLA applies globally, and the complexity and justification for the complexity of the IAP system is due in large part because of the global nature of the business.⁴⁵⁰ The parties agree that China is different.⁴⁵¹

Thus, the Court finds the relevant geographic market to be global.

IV. MARKET POWER IN RELEVANT MARKET

In addition to Apple's market share in the relevant market of mobile gaming, the Court examines other evidence of Apple's market power in the mobile game transactions market and considers pricing, nature of restrictions, operating margins, and barriers to entry.

A. Pricing

The experts agree that the ability to set and maintain supracompetitive prices is evidence of market power. Dr. Schmalensee emphasizes, however, that two-sided platforms often have skewed pricing so supracompetitive prices on one side may not be indicative. He also opines

⁴⁴⁷ Apple FOF ¶¶ 444–446 (citations omitted); *see* Ex. Expert 7 (Lafontaine) ¶ 91.

⁴⁴⁸ Apple FOF ¶¶ 447–450; Ex. Expert 7 (Lafontaine) ¶¶ 90–91, 93.

⁴⁴⁹ Further, Dr. Lafontaine acknowledged that, when reaching her geographic market limited to United States consumers, she did not consider developers' ability to directly distribute apps to consumers. Indeed, she did not know whether direct distribution is limited by national boundaries. Trial Tr. (Lafontaine) 2067:7–2068:3.

⁴⁵⁰ Ex. Expert 1 (Evans) ¶¶ 145, 266; Trial Tr. (Kosmynka) 985:21–986:24; Trial Tr. (Schmid) 3221:21–3222:2; Trial Tr. (Grant) 723:25–724:4.

⁴⁵¹ Ex. Expert 1 (Evans) ¶¶ 71, 108.

that only price changes over time are relevant to determining market power.⁴⁵² The parties thus dispute whether Apple’s commission is (i) supracompetitive and (ii) has increased or decreased over time.

As an initial matter, as detailed above, the 30% commission was not set by competition or the costs of running the App Store, but as a corollary to other gaming commission rates. Next, the evidence showed four pricing considerations after the initial rate. First, in 2009, Apple introduced IAP using the same 30% commission. Second, in 2011, Apple enabled recurring subscriptions purchases on the iPhone. Third, in 2016, Apple introduced paid search ads on the App Store. Finally, in late 2020, Apple introduced the Small Business Program. That program reduced Apple’s commission to 15% for developers making less than one million dollars. *See supra* Facts § I.C.3.c.

Both parties cite these pricing changes as evidence that Apple has or lacks market power. Epic Games cites the introduction of IAP, recurring subscription payments, and search ads as evidence of price increases. This evidence is not persuasive because both IAP and recurring subscriptions correspond to new features, not price increases on existing features. With respect to search ads, one would reasonably expect that a fundamental purpose of an app store is to provide search capability or “discoverability.” Thus, by offering developers the option to pay for search ads, one could argue that this is not a new feature and therefore more probative of a price increase. On the other hand, developers do not have to use search ads which suggests this is could be viewed as a new feature. The record was undeveloped on this point.

Apple, on the other hand, cites the reduction on second year subscriptions and the Small Business Program as evidence of price decreases. The subscription reduction is highly probative; the evidence shows that Apple’s decision coincided with several large developers ending in-app subscriptions through iOS apps (and therefore exercising power to leave Apple’s platform). However, as described above, subscription apps face different market conditions than games, and there is no evidence of *game* developers leaving for other platforms to force a price decrease.⁴⁵³ Further, the Court has explained above why the evidence on Apple’s motivations regarding the Small Business Program is mixed. Regardless of whether altruism or regulatory pressure caused Apple to lower its commission, competition does not appear to have played a role.⁴⁵⁴

Given the lack of clear evidence about price increases or decreases due to competition, Dr. Hitt focuses on Apple’s average commission, which he argued decreased over time from the growing presence of free apps on which Apple receives no commission. He argues this decrease

⁴⁵² Ex. Expert 8 (Schmalensee) ¶¶ 108–109.

⁴⁵³ *See* Ex. Expert 6 (Hitt) ¶¶ 102, 105.

⁴⁵⁴ The Court does note that after Apple introduced the Small Business Program, Google quickly followed suit on Android. However, Mr. Cook was not aware of any other store that did so. This reinforces that Apple and Google compete with one another. Trial Tr. (Cook) 3860:4–10.

is inconsistent with market power.⁴⁵⁵ However, the evidence is less probative because of the unique nature of Apple's business as both the device maker and app store operator.⁴⁵⁶ Namely, Apple has repeatedly acknowledged that free apps make its platform more attractive, which helps it sell more devices.⁴⁵⁷ As such, under a two-sided transaction platform analysis, the cost to users from purchasing devices to access free apps likely offsets the reduced price offered to developers of those apps.⁴⁵⁸ Given Epic Games' theory that no commission should be levied, where the tipping point is in terms of that offset has not been explored.

Thus, ultimately, the pricing evidence does not show either market power or its absence. Apple's initial rate of 30%, although set by historic gamble, has apparently allowed it to reap supracompetitive operating margins. *See infra* Facts § IV.C. The choice to not raise that price further is consistent with market power if that price already reflects monopoly levels.⁴⁵⁹ Only rarely has Apple reduced its commission in response to competitive pressure, such as with the second-year subscriptions. However, because subscription apps are a separate market from game apps, that does not show lack of market power in the mobile game transaction market.⁴⁶⁰

B. Nature of Restrictions

Epic Games also cites the nature of the restrictions as evidence of Apple's market power. Apple uses both technical and contractual means to restrict app distribution. Technically, Apple prevents unauthorized apps from downloading on the iPhone. It does so by granting certificates

⁴⁵⁵ Ex. Expert 6 (Hitt) ¶¶ 169–176, 184.

⁴⁵⁶ Notably, the price of game in-app commissions has only grown over time. This again suggests that game developers may be subsidizing the rest of the App Store. *Id.* ¶¶ 174–175.

⁴⁵⁷ *See, e.g.*, Trial Tr. (Cook) 3988:14–3989:5; PX-2060.005.

⁴⁵⁸ Ex. Depo. (Okamoto) 324:04–325:10; PX-2060.018–.019; Trial Tr. (Cook) 3990:18–3991:8.

⁴⁵⁹ As noted previously, Apple executives initially questioned whether they can maintain a 30% commission in response to competition. PX-0417. Apple still does not track costs or pricing on different platforms to determine its rate. Trial Tr. (Fischer) 904:18–905:6; Ex. Depo. 8 (Cue) 141:13–142:09.

⁴⁶⁰ Apple makes two additional arguments for lack of market power. First, it claims that it has not restricted output. Apple FOF ¶¶ 467–468. Again, in light of the unique business model, game output here makes Apple's platform more attractive and increases rather than decreases its profits. Second, it claims that the 30% commission is consistent with other online platforms. Apple FOF ¶¶ 469–478. This argument is discussed above and below in relation to anticompetitive conduct. In short, the use of a 30% commission by other platforms is not dispositive because those platforms have a different business model than Apple and frequently negotiate their headline rates, so their effective rates are below 30%.

to developers; no certificate means the code will not run.⁴⁶¹ Contractually, Apple imposes the DPLA, which prohibits developers from distributing apps outside the App Store.⁴⁶²

These contractual terms are standardized and nonnegotiable—a contract of adhesion. Only a few developers have succeeded in modifying these terms by threatening to go to other platforms. Specifically, Spotify and Netflix have removed in-app purchasing functionality from iOS apps. On the other hand, both Down Dog and Match Group have testified that they have been unable to entice users to other platforms with lower prices. Match Group has employed marketing campaigns and promotions for web purchases, but the app sales have continued to “dominate.” Down Dog has had better success at offering cheaper subscriptions on the web, but Apple’s anti-steering provision has prevented it from directing users to the cheaper price. Thus, while 90% of Down Dog’s Android users make purchases on the web, only 50% of its iOS users do so, even though about half of its total revenues still come from iOS users.

Accordingly, evidence shows Apple’s anti-steering restrictions artificially increase Apple’s market power by preventing developers from communicating about lower prices on other platforms.⁴⁶³

C. Operating Margins

The experts agree that “persistently high economic profit is suggestive of market power.” Dr. Schmalensee opines that *operating* margins and *accounting* profit are less probative because they fail to take into account intellectual property and similar investments that lower operating costs. Dr. Barnes criticizes this opinion as an accounting matter, and Dr. Evans opines that in this specific case, accounting profits are an appropriate measure of market power. From this issue, we see a classic battle of the experts.⁴⁶⁴ *See supra* Facts §§ II.C.5, II.B.

Here, in light of all of the evidence, the circumstances of Apple’s P&L statements, and Apple’s low apparent investment in App Store-specific intellectual property, the Court finds that operating margins are probative of market power. As described above, the App Store operating

⁴⁶¹ Trial Tr. (Kosmyinka) 986:9–22; Trial Tr. (Federighi) 3373:17–25, 3388:11–3389:12.

⁴⁶² PX-2619 §§ 3.2(g), 7.6. Recall that developers may license and use Apple’s tools for free to create iOS apps under the Developer Agreement, but actually distributing them requires signing the DPLA. Trial Tr. (Schiller) 2757:1–2760:9.

⁴⁶³ Trial Tr. (Schiller) 2760:16–21; Trial Tr. (Simon) 354:83–55:1, 359:3–364:13, 401:5–20; Ex. Expert 6 (Hitt) ¶¶ 102, 105; Ex. Depo. (Ong) 24:17–26:5, 28:9–29:22.

⁴⁶⁴ Trial Tr. (Schmalensee) 1899:19–21, 1984:2–12; Trial Tr. (Evans) 1545:3–14, 1723:20–1724:19; Trial Tr. (Barnes) 2456:6–2458:11.

margins are “extraordinarily high.” Thus, even without comparison to other stores, the operating margins strongly show market power.⁴⁶⁵

Further, Apple cannot hide behind its lack of clarity on the value of its intellectual property. Not all functionality benefits all developers. Further, as discussed, Apple has actually never correlated the value of its intellectual property to the commission it charges. Apple is responsible for the lack of transparency and whole-cloth arguments untethered to its rates do not ultimately persuade.

D. Barriers to Entry

With respect to barriers to entry, the evidence is mixed. On the one hand, Dr. Athey plausibly opines that entry into the platform business is difficult due to the need to attract both users and developers. Said differently, developers do not develop for new platforms unless they have a healthy user base, but users only go to platforms that already have a developed ecosystem. Thus, indirect network effects often dominate and create a “winner-take-all” system that allows only a few large platforms to survive.⁴⁶⁶ *See also supra* Facts § II.B.1.

On the other hand, the mobile game market is changing, including with the introduction of cross-platform policies, cross-platform services (*e.g.* cloud-based game streaming), and new hybrid platforms such as the Nintendo Switch. First, the introduction of cross-platform middleware like cross-wallet and cross-play has plausibly decreased barriers to new entrants. The rise of game streaming may allow for competition among platforms on iOS in the near future, even if Apple maintains its app distribution restrictions. The role of game streaming and whether it will constrain market power remains to be seen.⁴⁶⁷ *See supra* Facts § II.D. In light of these uncertainties, the Court finds that barriers to entry are currently relatively high but are plausibly decreasing and may be lower in the future.⁴⁶⁸

V. FACTS REGARDING ALLEGED ANTICOMPETITIVE EFFECT

Epic Games contends that Apple’s restrictions on iOS app distribution and in-app payment processing create anticompetitive effects. As explained above, the App Store is a two-sided transaction market, which may make competitive effects difficult to evaluate. In two-sided

⁴⁶⁵ *See* Trial Tr. (Evans) 1545:3–14 (explaining that in a competitive market, high profits decline because companies would reduce prices and invest in quality to stave off competition).

⁴⁶⁶ Ex. Expert 4 (Athey) ¶¶ 16–19, 35–46.

⁴⁶⁷ Trial Tr. (Athey) 1787:14–18; Trial Tr. (Patel) 424:8–9 (number of games currently on GeForce is small), 449:8–450:2 (strict limitations on usage), 481:16–484:24 (same), 483:25–484:4 (game streaming not profitable).

⁴⁶⁸ Of course, game streaming typically requires an up-front subscription fee, which makes it unlikely to replicate the “freemium” model that gains users by an initial free download. Trial Tr. (Patel) 483:13–485:14; Trial Tr. (Sweeney) 187:24–188:3 (attributing “a lot of [Epic Games’] success” to the freemium model).

transaction markets, an anticompetitive price or restriction on one side may well reflect a competitive equilibrium on the other side.⁴⁶⁹ Thus, the experts agree that competitive effects can only be determined after carefully considering both sides of the transaction (developers and users), including any indirect network effects.⁴⁷⁰

With this in mind, the Court reviews evidence of the competitive effect of Apple's challenged conduct.

A. Anticompetitive Effects: App Distribution Restrictions

1. Effects

With respect to Apple's app distribution restrictions, Epic Games focuses on the following alleged anticompetitive effects: (a) foreclosed competition; (b) increased consumer app prices; (c) decreased output; (d) decreased innovation; and (e) effect on other markets through the restrictions on app stores. Apple, in turn, argues that the restrictions provide a safe and secure place to conduct game transactions and compensate Apple for its procompetitive investments in iOS. The Court first addresses Epic Games' evidence and then Apple's procompetitive justifications in the next section.

a. Foreclosure of Competition

With respect to the issue of foreclosing competition, the contention is not in dispute. Quite simply, Epic Games wanted to open a competing app store and could not. The evidence is mixed as to the demand to do so. Epic Games relies on the experience of Microsoft and Nvidia, which tried to offer native iOS game streaming apps (xCloud and GeForce NOW) but were blocked by Apple's restrictions.⁴⁷¹ Both companies, however, ultimately succeeded in making

⁴⁶⁹ For instance, Dr. Schmalensee offers the example of OpenTable that suspends a user's account after a certain number of no-shows. Although this may seem like an arbitrary exercise of power to the user—particularly if there are few other reservation apps in that market—the restriction helps keep the platform attractive for restaurants and thus serves a procompetitive end by increasing participation. Ex. Expert 8 (Schmalensee) ¶ 30.

⁴⁷⁰ Ex. Expert 1 (Evans) ¶ 216; Ex. Expert 8 (Schmalensee) ¶ 127.

⁴⁷¹ As explained elsewhere, GeForce allows streaming of games users purchased through other platforms, such as Steam. xCloud is limited to Microsoft games. Thus, they are each a type of game store, though idiosyncratic in not needing to access device hardware (which is what allows them to work through the web). Indeed, four of the five stores blocked by Apple's challenged rule concern game streaming. Trial Tr. (Patel) 425:1–11, 432:17–433:12; Ex. Expert 1 (Evans) ¶ 166.

their apps available through the web. Although neither party was fully satisfied with the results, their experiences do not show complete foreclosure of competition.⁴⁷²

Instead, Epic Games relies on comparative evidence with other markets. On devices without app distribution restrictions, many app and game stores exist. For instance, Windows and Mac computers host game publishers like Steam, Electronic Arts, and Activision Blizzard who directly distribute through their own stores. Apple executives have acknowledged that the Mac App Store matters primarily for Apple software and smaller developers, while developers with market power are not on the Mac store “because they don’t have to be.”⁴⁷³ According to Dr. Evans, there are at least ten third-party stores on Mac and Windows, and most top apps are distributed directly from the developer website. Indeed, several large game developers, like Google and Facebook, have tried to distribute games on iOS in recent years.⁴⁷⁴

The evidence also shows that smaller developers might choose direct distribution while remaining in the App Store. For instance, the CEO of Down Dog, the fitness app, testified that he would support users installing directly from a website.⁴⁷⁵ Notably, however, these developers did not testify that they would leave the App Store altogether. That is because, as Apple shows, the App Store provides many benefits to developers, including developer tools, promotional support, and a ready audience, that enables small developers to compete with large ones. For instance, 72% of small developers lack a marketing budget, and Apple provides significant free advertising and “spotlighting” to help users discover new apps as part of its DPLA.⁴⁷⁶

While plaintiff did not survey developers, taken together, this evidence suggests that Apple’s restrictions foreclose competition for large game developers who have well-known games. These developers would likely, and have the resources to, open their own stores to forego Apple’s “fees, rules, and review.”⁴⁷⁷ Smaller developers, on the other hand, would likely

⁴⁷² Trial Tr. (Wright) 568:13–571:8, 579:1–10; Trial Tr. (Patel) 429:11–25. Apple has also blocked Big Fish, a “game store within an app,” and web stores. PX-0115; PX-0111.

⁴⁷³ PX-2386.

⁴⁷⁴ Ex. Expert 1 (Evans) ¶¶ 163–168; Trial Tr. (Allison) 1200:14–1201:14. Dr. Evans also provides comparison to the over 60 Android app stores in China and numerous third-party stores on early smartphones. However, Epic Games has not shown that those markets are sufficiently comparable to the market here. Ex. Expert 1 (Evans) ¶ 165.

⁴⁷⁵ Ex. Depo. (Ong) 33:18–34:07; Trial Tr. (Simon) 392:9–17.

⁴⁷⁶ Ex. Expert 8 (Schmalensee) ¶ 51; Trial Tr. (Fischer) 931:23–933:20, 935:15–936:23; DX-3800.038; Trial Tr. (Schiller) 2737:9–24.

⁴⁷⁷ PX-2386.

stay on the App Store (or a comparable store) for product discovery reasons. Indeed, that is exactly what happened earlier on PCs, which bolsters the likely evaluation and outcome.⁴⁷⁸

b. Increased Consumer App Prices

Next, Epic Games argues that Apple’s app distribution restraints increase prices for consumers. Epic Games’ argument is plausible. As Dr. Evans testified, “[w]e know from economics, both theory but also practical experience, in situations where there are barriers to competition and they’re removed that what typically happens [is] . . . that prices tend to fall [and] quality tends to improve.”⁴⁷⁹

In the context of gaming, Dr. Evans’s observation has vivid illustration in the PC market. The incumbent Steam store charged a 30% commission for decades before Epic Games’ store entered with a 12% commission. Immediately before that time, Steam lowered its commission to 20%, and its average commission rate declined to 10.7%. Microsoft followed suit shortly after, with other stores offering pay-what-you-want. This competition has affected platform margins, which are considerably smaller on PCs than on other devices—5% compared to 45%.⁴⁸⁰

Dr. Evans opines that the same would happen if Apple allowed third-party app stores on iOS. He posits that numerous third-party app stores would enter iOS in the absence of restraints and that these stores would compete for developers. The competition would exert pressure on Apple, which would have to lower prices or improve services. To calculate the resulting prices, Dr. Evans relies on several sources. First, he cites Mr. Schiller’s 2011 statement that a 20% or 25% commission is “competitive.”⁴⁸¹ Second, he uses Mr. Barnes comparisons of online marketplaces to calculate Apple’s commission if its operating margins were only as high as the highest in a competitive market (Alibaba with 45.8% margins). Under that calculation, and assuming that developers would pass on half of the commission, Apple would only charge 15.6% while still being very profitable.⁴⁸²

Apple vigorously disputes this evidence. First, it points out that the 30% commission is standard for other stores, including on competitive platforms.⁴⁸³ For instance, Apple charges

⁴⁷⁸ See Trial Tr. (Allison) 1206:1–1209:8; Trial Tr. (Evans) 1510:24–1511:7.

⁴⁷⁹ Trial Tr. (Evans) 1551:15–1552:2.

⁴⁸⁰ Trial Tr. (Allison) 1209:13–1210:1, 1275:18–1276:5; Ex. Expert 1 Evans ¶¶ 170–173; DX-5523.011.

⁴⁸¹ See PX-0417.

⁴⁸² Ex. Expert 1 (Evans) ¶¶ 180–184; Ex. Expert 2 (Barnes) ¶ 3.

⁴⁸³ Apple also argues that it charged 30% from the very beginning when it was not a monopolist. However, there is evidence that Apple did not consider the rate to be sustainable at that time and questioned whether “enough challenge from another platform or web based solutions” will cause it to adjust. PX-0417. Moreover, Apple recognized that the App Store was “brand-new,” with no true comparisons in the market, and set the rate set without considering

30% on Macs, which Dr. Evans agrees is competitive. However, Apple’s argument is suspect. One, Apple relies on “headline” rates that Dr. Evans and Dr. Schmalensee agree are frequently negotiated down. For example, the Amazon App Store has a headline rate of 30%, but its effective commission is only 18.1%. Both Ms. Wright and Mr. Sweeney testified that consoles frequently negotiate special deals for large developers. Sealed evidence in this case confirms the same. Two, just because it is the competitive rate for games in the console market, does not mean that the rate translates to the mobile games market. As described above, the App Store has very different operating margins than consoles, so even if the commission is the same, the economics and the nature of the products are very different. Thus, ultimately, these comparisons are not useful because the other stores do not operate in the same market.⁴⁸⁴

Neither party grapples with the overarching issue of Apple’s choice of model and how it subsidizes certain developers. Rather, each side manipulates the “zero” commission rates on free or freemium apps to their advantage. Apple relies on analysis by Dr. Hitt who argues that the average commission rate in FY2019 was 8.1% for game apps and 4.7% for all apps while Dr. Evans and Dr. Cragg ignore the category all together. Ultimately, neither analysis is helpful.⁴⁸⁵ Developers and Apple have learned that the freemium model is significantly more lucrative than the alternatives given the ability for impulse purchases. For those, the commission rate remains at 30% notwithstanding the choice of other developers.

Last, Apple argues that the 30% rate is commensurate with the value developers get from the App Store. This claim is unjustified. One, as noted in the prior section, developers *could* decide to stay on the App Store to benefit from the services that Apple provides. Absent competition, however, it is impossible to say that Apple’s 30% commission reflects the fair market value of its services. Indeed, at least a few developers testified that they considered Apple’s rate to be too high for the services provided.⁴⁸⁶ Two, Apple has provided no evidence that the rate it charges bears any quantifiable relation to the services provided. To the contrary, Apple started with a proposition, that proposition revealed itself to be incredibly profitable and there appears to be no market forces to test the proposition or motivate a change.

costs. Ex. Depo. 8 (Cue) 135:8–136:14, 137:23–138:14. Thus, the initial rate was at least partly protected by the iPhone’s “newness” and may not reflect a competitive rate.

⁴⁸⁴ Ex. Expert 6 (Hitt) ¶¶ 166–167; Trial Tr. (Evans) 1686:6–12, 2439:1–2441:23; Trial Tr. (Schmalensee) 1958:1–5; Trial Tr. (Wright) 586:11–21; Trial Tr. (Sweeney) 310:1–17; PX-2392.003. Google, of course, operates in the same market.

⁴⁸⁵ Ex. Expert 6 (Hitt) ¶ 180; Ex. Expert 13 (Cragg) ¶ 98; Ex. Expert 16 (Evans) ¶ 50; Trial Tr. (Hitt) 2198:24–2200:6. Similarly unhelpful is Dr. Cragg’s analysis of average dollar amounts of Apple’s commission. Ex. Expert 13 (Cragg) ¶¶ 99–101. These numbers are coextensive with developers charging higher prices; absent some evidence that Apple caused them to do that, the analysis simply reflects broader growth in the industry. Ex. Expert 6 (Hitt) ¶ 174; Trial Tr. (Hitt) 2110:9–2111:21.

⁴⁸⁶ Trial Tr. (Simon) 377:3–10; Trial Tr. (Fisher) 911:4–11 (Apple received developer complaints that the rate is too high).

Accordingly, the Court finds that Apple’s restrictions on iOS game distribution have increased prices for developers. In light of Apple’s high profit margins on the App Store, a third-party store could likely provide game distribution at a lower commission and thereby either drive down prices or increase developer profits. The Court must reserve on whether Apple’s restrictions have increased prices for consumers as the evidence is mixed.⁴⁸⁷ Here, Epic Games’ role as a consumer is not in the traditional sense but only in the sense of a consumer of transactions with traditional consumers. This issue was not the focus of this trial.

c. Decreased Output

The parties dispute impact on output. Apple argues that the amount of iOS game output has increased over time. On this, the Court agrees. The evidence shows that iOS game transactions exploded by 1,200% since 2008,⁴⁸⁸ with double that growth in developer game revenue. However, that does not mean that Apple’s conduct is procompetitive. As Dr. Evans explained, “high-technology industries [often] grow extraordinarily rapidly” even where “a dominant firm emerges very quickly,” so “tremendous growth” in these markets is “commonplace.” Using growth as a competitiveness metric would “be essentially a free pass for high-tech companies.”⁴⁸⁹

Unfortunately, what is needed is a comparison of output in a “but-for” world without the challenged restrictions. Such comparison is not in the record. Dr. Hitt provides some evidence that iOS game revenue grew faster than the game market as a whole and, importantly, that game revenue on iOS grew faster than on Android.⁴⁹⁰ Growth rates, however, are difficult to compare because of different initial starting points. Moreover, even assuming that iOS gaming revenue grew faster than the market, it is difficult to attribute that growth to the App Store (as opposed to, for instance, superior iPhone hardware or user experience). Thus, the high output may have been even higher without Apple’s restrictions.⁴⁹¹

⁴⁸⁷ See, e.g., Trial Tr. (Simon) 355:17–356:17; Trial Tr. (Sweeney) 97:7–14; Ex. Depo. (Ong) 74:8–12; *see also* Ex. Depo. 12 (Gray) 176:23–178:2; PX-0533.010 (even within the Apple ecosystem, app prices are higher on platforms where Apple charges 30% rather than 15%).

⁴⁸⁸ The growth in iOS game transactions corresponds to both strong growth in the gaming industry and strong growth in iPhone and iPad sales. Ex. Expert (Hitt) ¶¶ 183–189. These factors could cause mobile game transactions to grow even if Apple’s restrictions are anticompetitive.

⁴⁸⁹ Trial Tr. (Evans) 2366:22–2367:8; Ex. Expert (Hitt) ¶ 183.

⁴⁹⁰ Game revenue grew by 2,600% between 2010 and 2018 on iOS but only 367% between 2013 and 2018 on Android. Ex. Expert 6 (Hitt) ¶¶ 183–184.

⁴⁹¹ Ex. Expert (Hitt) ¶¶ 183–185; Ex. Expert 7 (Lafontaine) ¶ 100; Trial Tr. (Hitt) 2083:8–18; Trial Tr. (Evans) 1721:11–18; Ex. Expert 16 (Evans) ¶ 75.

Dr. Evans, on the other hand, opines that a high commission reduces output because it leads to higher prices that cause consumers to purchase less, which reduces the number of viable games. Some evidence supports that view. For instance, Apple has recognized that some developers have taken the position that they do not have the margin to support the 30% commission, which is “prohibitive [of] many things.” The magnitude of the effect, however, is unclear.⁴⁹² Thus, there is no evidence that a *substantial* number of developers actually forego making games because of Apple’s commission.⁴⁹³

Thus, the analysis is insufficient to determine that Apple’s restrictions had either a negative or a positive impact on game transaction volume.

d. Decreased Innovation

Next, Epic Games argues that Apple’s app distribution restrictions harm innovation. Epic Games makes two arguments. First, it argues that Apple’s 30% commission imposes a burden on developers, who either reduce their game investment or forego making games altogether as a result. Part of this argument is related to output and fails for the same reason: Epic Games has not shown that any developer actually stopped making games because of Apple’s commission, albeit they may reduce investment.⁴⁹⁴ This, however, is a natural corollary of having to pay app store commissions and does not present a separate argument for anticompetitive effects, particularly since third-party stores would likely continue charging commissions.

Second, Epic Games argues that Apple’s restrictions have reduced innovation in game distribution itself. The parties agree that the App Store provides features besides distribution, including search and discoverability to help users discover games, in-app payment processing, developer tools, and security.⁴⁹⁵ Competition could improve each of these features: a third-party

⁴⁹² Epic Games cites testimony that Apple is aware of “some developers” who said that they would not launch native iOS apps because of Apple’s 30% commission. Ex. Depo. 8 (Cue) 150:5–12.

⁴⁹³ Ex. Expert 1 (Evans) ¶ 275; Trial Tr. (Schiller) 3111:7–14; PX-0438.

⁴⁹⁴ Trial Tr. (Sweeney) 92:8–13.

⁴⁹⁵ As explained in this Order, in-app payment processing is an integrated part of the App Store. That does not, however, mean that it would not benefit from competition. Third-party app stores could provide substantial innovation in payment processing by incorporating more developer-friendly tools (such as, for example, easy refunds). Thus, all of the anticompetitive effects listed in the next section for in-app payment processing apply to Apple’s restrictions on distribution.

app store could provide better “matchmaking” between users and developers, could have simpler in-app payments, and could impose a higher standard for app review to create more security.⁴⁹⁶

Notably, Apple conducted developer surveys in 2010 and 2017. Comparing the two indicates that Apple is not moving quickly to address developer concerns or dedicating sufficient resources to their issues. Innovators do not rest on laurels. While more developers may be “satisfied” or “very satisfied” than not, a significant portion are not.⁴⁹⁷ For example, a top reason for dissatisfaction with the App Store is lack of functions which other platforms have, such as personalized recommendations.⁴⁹⁸ An email summarizing 2018 write-in answers suggests that developers perceive the App Store as lacking features common to other platforms. For instance:

- “Apple store needs to have ‘smart search’ ability. Having to require customers to spell names exactly correct in this age is ridiculous for a multi-billion dollar company.”
- “[T]he search algorithm is terrible. It is a rating based algorithm rather than a name search. I can search for my apps and type their EXACT name and they still won’t come up. I may even need to scroll down 100s of pages before my app shows up.”
- “Discoverability is still a significant challenge on the App Store (even after last year’s update). Our organic downloads for games on Steam are much higher than our games on the App Store, even though the App Store has more active users. This doesn’t make sense.”
- “The App Store desperately needs A/B testing. On Google Play, I’ve been able to optimize my store listing and because of that, I’ve been able to see unbelievable growth. If Apple added A/B testing for App Store listings, everyone would see a lift in downloads and ultimately more revenue for developers as well as Apple.”

⁴⁹⁶ See Trial Tr. (Evans) 1560:12–25 (search and discovery is the “core element of what any store does”); Trial Tr. (Schmalensee) 1954:3–9 (App Store provides “matchmaking”). *But see* Trial Tr. (Evans) 1502:15–1503:18 (excluding in-app payment processing).

⁴⁹⁷ The Court acknowledges that the survey data includes five categories (Very Satisfied, Somewhat Satisfied, Neutral, Somewhat Dissatisfied and Very Dissatisfied) and that if combining the two “satisfied” categories, more developer fall within that zone than the two “dissatisfied” categories. That said, by adding in those who are “Neutral,” Apple rating is more in the range of 60-40. *See generally* DX-3922.

⁴⁹⁸ Ex. Expert 1 (Evans) ¶¶ 191–192, 196; DX-3922.066, .072, .074; DX-3877.019; *see also* DX-3800 (2015 survey). Apple responds by pointing to search ads, which it enabled in 2016 in response to these complaints. Trial Tr. (Cook) 3889:16–3890:2; PX-2284.006. That said, developers must pay for these search ads and competitors may use them to artificially drive traffic, which decreases overall app discoverability. *See* Ex. Depo. (Ong) 59:14–60:14. Thus, the search ads are, at best, a mixed blessing for poor overall matchmaking.

Indeed, Apple’s own former Head of App Review, Philip Shoemaker, has described the App Store as “antiquated,” with “no radical innovation, only evolution” for the last ten years.⁴⁹⁹

In addition, developers complain that app review guidelines lack clarity and are inconsistently applied.⁵⁰⁰ Part of this issue stems from the sheer number of apps submitted with only 500 human reviewers. Apple has been slow either to adopt automated tools that could improve speed and accuracy or to hire more reviewers.⁵⁰¹ As discussed further below, Apple’s in-app payment processing tool also lacks features.

Apple’s slow innovation stems in part from its low investment in the App Store. As Mr. Barnes described, “[o]nly a small amount of direct and allocated R&D . . . [flows] . . . to the Apple App Store.” Apple argues that Epic Games fails to account for R&D that affects multiple lines of the business, which counts as joint costs. Even Dr. Schmalensee admitted that the estimates, which were put together specifically for Apple’s CEO, show very little R&D allocated to the App Store. Thus, even if the Court accepts that some App Store revenue goes to features that indirectly benefit developers, like hardware, the evidence remains that “core” matchmaking features of the store see little investment.⁵⁰²

Ultimately, the point is not that the Apple provides bad services. It does not: most developers are satisfied with the App Store, particularly with its developer tools.⁵⁰³ Rather, the point is that a third-party app store could put pressure on Apple to innovate by providing features that Apple has neglected. Because this competition is currently precluded, Apple’s restrictions reduce innovation in “core” game distribution services.

⁴⁹⁹ PX-0098.001; *see* Ex. Depo. (Shoemaker) 31:03–05, 64:13–64:20.

⁵⁰⁰ *E.g.*, Ex. Depo. (Ong) 62:15–64:16; Ex. Depo. (Shoemaker) 126:20–23; Trial Tr. (Simon) 384:7–385:8.

⁵⁰¹ Trial Tr. (Kosmynka) 1083:12–15, 996:7–12; PX-0137.001 (Google had automated review before Apple). *But see* DX-3642 (describing App Store redesign in response to developer complaints). *See also* Ex. Expert 11 (Rubin) ¶ 57.

⁵⁰² Ex. Expert 1 (Evans) ¶¶ 187–189; Ex. Expert 2 (Barnes) ¶¶ 19–22; Trial Tr. (Schmalensee) 1902:2–4, 1981:16–1982:5; PX-2385.024.

⁵⁰³ *E.g.*, DX-3922.063. Apple also cites surveys showing very high *user* satisfaction with the iPhone. DX-4275.205; DX-4089.056. The surveys, however, concern the device as a whole and, if anything, reinforce the lesser role played by third-party apps. Thus, the most important features driving purchasing decisions all relate to hardware—battery life, performance, durability, and ease of use—which also form the top reasons for considering other devices. DX-4089.010, .035, .037. By contrast, only 28% of users consider third-party apps an important “other” aspect of their iPhone purchase decision. DX-4089.012.

e. Other Effects

Epic Games raises two other potential anticompetitive effects. First, Epic Games argues that Apple self-preferences its own apps.⁵⁰⁴ Using partial testimony from Mr. Shoemaker, plaintiff claims that Apple used the app review process “as a weapon against competitors” and placed “barriers” between competitor apps, while using the data obtained through app review to create its own apps. For example, Apple Arcade has been allowed on the store, despite being a store within a store. Google Voice, on the other hand, was rejected on “pretextual grounds” because of Apple’s concern that the iPhone will “disappear . . . in guise of a Google phone.”⁵⁰⁵

Upon review, the proffer is weak. Mr. Shoemaker clearly believes that Apple misuses its app review process. Aside from his limited deposition excerpts, however, there is little objective evidence of self-preferencing. For instance, Apple Arcade apparently complies with App Store requirements that each game be individually downloaded.⁵⁰⁶ There is thus at least a factual dispute about whether it accords with the guidelines. As to Google Voice and Rhapsody, even Mr. Shoemaker acknowledges that they were “the first of their kind” and that “Apple just didn’t know how to respond” during app review.⁵⁰⁷

Second, Epic Games argues Apple’s restrictions reduce “middleware” that could decrease switching costs and increase competition. Dr. Athey testifies broadly to this effect, opining that new platforms face a “chicken-and-egg” problem where they have to attract users through apps but have to attract developers through users. Middleware could help reduce these costs by allowing for app porting from one platform to another.⁵⁰⁸ As noted above, Dr. Athey’s analysis is plausible but wholly lacking in supporting evidence. She does not show that even her preferred examples of middleware, such as the multi-platform store Steam, have meaningfully

⁵⁰⁴ Epic Games argues that Apple self-preferences its apps in search, but provides little evidence in support. In one email, an Apple employee states that Mr. Fischer, “feels extremely strongly about not featuring our competitors on the App Store,” but Mr. Fischer says she was misinformed. PX-0058.001; Trial Tr. (Fischer) 954:12–955:12. Another email describes “boosting” certain apps over Dropbox, but Mr. Fischer immediately reversed the decision. PX-0052. As to search, Mr. Schiller testified that Apple does not use search ads for its own products, and Epic Games has not shown otherwise. Trial Tr. (Schiller) 2819:13–14.

⁵⁰⁵ Ex. Depo. (Shoemaker) 75:14–77:02, 78:13–78:24, 84:16–85:08, 88:02–88:08; PX-0099.006. Epic Games also cites evidence of developers’ complaints that Apple’s “apps are permitted to do things they are not.” PX-0858.002; Trial Tr. (Kosmynka) 1028:11–1030:4. The proffered evidence has no context so it cannot be evaluated.

⁵⁰⁶ Trial Tr. (Athey) 1854:6–16.

⁵⁰⁷ PX-0099.005.

⁵⁰⁸ Ex. Expert 4 (Athey) ¶¶ 42–47, 53–56.

increased new entrants, particularly since each platform still requires its own APIs.⁵⁰⁹ Thus, the evidence does not support anticompetitive effects in this area.

2. Business Justifications

Apple asserts two business justifications for its app distribution restrictions.⁵¹⁰ First, it argues that prohibitions on third-party app stores helps ensure a safe and secure ecosystem. This benefits both users, who enjoy stronger security and privacy, and developers, who benefit from a larger audience drawn by these features. It also benefits Apple, which uses privacy and security as a competitive differentiator for its devices and operating system.⁵¹¹

Second, Apple claims that the distribution restrictions are part of its intellectual property licensing arrangement for which it is entitled to be paid. As the owner of the devices and operating system, Apple could choose not to license its IP and remain the exclusive developer of iOS apps. Instead, Apple has actively licensed, developed, and improved its IP for others, but only on the condition of iOS remaining a “walled garden.” Thus, Apple argues that its contractual restrictions are necessary to protect its IP investments and prevent free riding.⁵¹²

Epic Games responds that each of these justifications is pretextual. Apple’s commission is wholly disconnected from—and not motivated by—its intellectual property investments. Epic Games also contends that an exclusive app store is not necessary to maintain security, which can be achieved through less restrictive means, such as notarization.⁵¹³

The Court examines the evidence for each.

⁵⁰⁹ See *id.* ¶ 67; Ex. Expert 6 (Hitt) ¶¶ 261–262 (while Steam decreases costs to *offer* games across platforms, it does nothing for costs to *develop* them).

⁵¹⁰ In its Findings of Fact, Apple focuses heavily on the procompetitive nature of app stores in general. Thus, Apple argues that before it introduced the App Store, distribution was limited to the web, and that the App Store launched a new wave of innovation that benefited consumers and developers alike. Apple FOF ¶¶ 545–548. Since Epic Games does not challenge Apple’s right to maintain the App Store but only its restrictions on other distribution—which may provide similar or equivalent benefits—these procompetitive effects are not directly tied to the challenged conduct.

⁵¹¹ Apple FOF ¶¶ 581–595; Trial Tr. (Schiller) 2734:21–2735:2, 2830:25–2831:3; Ex. Expert 11 (Rubin) ¶¶ 23, 56–59; Trial Tr. (Sweeney) 93:8–11; Trial Tr. (Evans) 1689:16–1690:8; Ex. Expert 8 (Schmalensee) ¶¶ 52–54.

⁵¹² Apple FOF ¶¶ 596–602; Ex. Expert 12 (Malackowski) ¶¶ 15–19, 26, 42, 51, 54.

⁵¹³ Epic Games FOF ¶¶ 564–700; *see also* Trial Tr. (Malackowski) 3662:13–17, 3666:16–3668:10–18, 3669:22–3670:7, 3692:18–3700:10; Trial Tr. (Schiller) 2738:15–24.

a. Security, Privacy, and Reliability

Beginning with the security justification, the Court notes at the outset that the parties adopt different definitions of security. Epic Games takes a narrow view of security as preventing an app from performing unauthorized actions or stealing user data. Thus, Epic Games’ security expert, Dr. Mickens, defines a “security property” as one that “make[s] an app easier to subvert” or allows it to “improperly interact with other apps” or “expose sensitive user data to potential theft or corruption.”⁵¹⁴

Apple, on the other hand, takes a broader view of security that includes user privacy, reliability, and “trustworthiness.” Its security expert, Dr. Rubin, opines that security concerns arise when an app targeted to children asks for a home address; when a simple Tic-Tac-Toe game requests microphone and camera access; when an app developer falsely represents their application; or when an app is so unreliable that its constant crashing endangers offline safety. Dr. Rubin also includes “objectionable content,” such as pornography and pirated apps, in his definition.⁵¹⁵ Because these apps perform no expressly unauthorized actions—and may be affirmatively authorized by the user—they raise different concerns than traditional malware.

The Court finds it useful to disaggregate these forms of security, as well as the two types of challenged restrictions (sideloading and “store-within-a-store”).

i. “Narrow” Security: Malware

Under a narrow conception of security, Apple protects from malware on iOS in at least four ways. *First*, Apple uses malware scanning programs to detect whether a piece of software corresponds to known malware. *Second*, it requires developers to register with a certificate and sign their code with that certificate so that malware can be traced back to a developer and code from unknown entities can be excluded. *Third*, it uses “sandboxing” to prevent an app from doing anything that the user has not authorized.⁵¹⁶ *Fourth*, it includes “reliability checks” on the App Store, which include automated app scanning, as well as human review. Together, these techniques create “layered” security that creates multiple barriers to malware.⁵¹⁷

All but the last of these malware protections are performed by the operating system or middleware independent of app distribution. Dr. Mickens thus opines that restrictions on app

⁵¹⁴ Ex. Expert 5 (Mickens) ¶ 49.

⁵¹⁵ Ex. Expert 11 (Rubin) ¶¶ 18–21. Mr. Federighi testified that security means “protecting users’ data and protecting their control over the device, making sure that what happens on their device is what the user intended and isn’t being manipulated by a bad actor.” Trial Tr. (Federighi) 3358:5–8. This definition encompasses Dr. Rubin’s examples.

⁵¹⁶ “Sandboxing” may encompass other techniques, such as memory isolation and address space layout randomization. Trial Tr. (Federighi) 3376:4–3378:14; Ex. Expert 5 (Mickens) ¶¶ 24–37.

⁵¹⁷ Trial Tr. (Federighi) 3372:10–3375:25, 3383:16–3384:14.

distribution are not necessary because the operating system implements all of the key security features. App review, by contrast, provides only secondary checks on sandbox compliance, exploit resistance, and malware exclusion, as well as “non-security” factors like privacy and legal compliance.⁵¹⁸

Importantly, however, Dr. Mickens focuses only on preventing unauthorized app functions. He opines that his preferred techniques work by removing “decision-making” power from applications and vesting them in the operating system. The OS then resolves the decision by prompting users for consent. Thus, even though the OS is formally making decisions, the user ultimately determines access.⁵¹⁹ The evidence shows, however, that this may not be enough to protect security because users often grant permissions by mistake. Mr. Federighi credibly testified that malware may use “social engineering” techniques to trick the user into granting access and evade operating system defenses. For example, malware may represent itself as a dating app to ask for photo access—which it can then encrypt and hold for ransom against the user. Epic Games did not explain how, if at all, the operating system can protect against this type of behavior.⁵²⁰

Moreover, system-level protections do not fully prevent downloading malware in the first place. As Dr. Rubin plausibly opines, “[i]t is unwise to *first* trust users to download malicious apps, and *then* try to subsequently detect malicious apps and deny giving malicious apps the permissions they might request.”⁵²¹ The evidence shows that social engineering attacks act as a dominant vector of malware distribution. A 2020 Nokia report indicates that “[i]n the smartphone sector, the main venue for distributing malware is represented by Trojanized applications,” which trick users into downloading by posing as a popular app. For example, a malicious app may represent itself as free Microsoft Word to obtain downloads. A 2020 PurpleSec report confirms that “98% of cyberattacks rely on social engineering.”⁵²²

For these types of attacks, human app review plays a meaningful role. During app review, a human reviewer confirms that an app corresponds to its marketing description. This prevents the “trojan” attacks described above, where malware tricks users into download by posing as another popular app. The human reviewer also checks that the app’s entitlements are reasonable for the task it purports to accomplish. Thus, a Tic-Tac-Toe game may be rejected if it asks for camera access or health data. Last, although not directly related, app review checks for

⁵¹⁸ Ex. Expert 5 (Mickens) ¶¶ 6–9, 66–70; Trial Tr. (Mickens) 2559:5–12, 2571:24–2572:5.

⁵¹⁹ Ex. Expert 5 (Mickens) ¶¶ 23, 72.

⁵²⁰ Trial Tr. (Federighi) 3371:3–3372:1, 3379:10–3380:13; Ex. Expert 11 (Rubin) ¶ 27.

⁵²¹ Ex. Expert 11 (Rubin) ¶ 30 (emphasis in original).

⁵²² DX-4975.008; DX-4956.006; Ex. Expert 11 (Rubin) ¶ 96; Trial Tr. (Federighi) 3370:2–12; Trial Tr. (Rubin) 2763:1–9.

offline safety issues. Although these tasks are straightforward, they require human review and cannot be implemented by a computer or operating system.⁵²³

The Court agrees with Epic Games that this process is imperfect. Apple has limited ability to prevent “Jekyll and Hyde” apps that change their behavior after review, and allows some malware to slip through.⁵²⁴ However, the overall error rate appears to be relatively small, with Apple’s former head of app review testifying that it was around 15% in 2015. Mr. Federighi confirmed that the error rate is generally small.⁵²⁵

Removing app distribution restrictions could reduce this effectiveness. First, app stores often differ in the quality of app review. On Android, which allows some third-party app stores, the main Google Play app store is secure, but a variety of third-party stores allow blacklisted apps to operate.⁵²⁶ A Nokia report attributes higher malware rates on Android to Trojan apps on third-party app stores. This creates a problem because, as Dr. Rubin opined, “security is only as strong as the weakest link.”⁵²⁷ Decentralized distribution thus increases the risk of infection by giving malware more opportunities to break through. Namely, if even one app store permits

⁵²³ Trial Tr. (Federighi) 3384:22–3388:7; Trial Tr. (Kosmynka) 1087:9–21, 1090:22–1094:1; Ex. Expert (Rubin) ¶¶ 31, 36–37. Human review may also provide some benefit against novel and well-hidden malware attacks. Dr. Rubin explains that automated tools investigate based on past threats to flag content, which makes them less able to detect novel attacks. Mr. Kosmynka acknowledged that his team has found new types of threats not picked up by automated tools. He also testified that his team finds well-hidden features not picked up by automated tools, including bait and switch. Trial Tr. (Kosmynka) 1108:1–1109:11, 1095:23–1103:8; Ex. Expert (Rubin) ¶ 40.

⁵²⁴ These issues appear to have preceded Apple’s use of dynamic analyzers, which may partly address the problem. *See* PX-0465; Trial Tr. (Kosmynka) 996:7–19, 1098:17–25.

⁵²⁵ PX-0465; PX-0335.006; Ex. Depo. (Shoemaker) 133:20–134:9; Trial Tr. (Federighi) 3486:15–23. Both parties also cite statistics about the overall rejection rate of app review. That says nothing about the error rate. Apps may be approved or rejected for proper and improper reasons. Trial evidence did not focus on this later issue.

⁵²⁶ The parties debate whether Android is less secure than iOS. Although some industry publications show greater malware on Android, Dr. Mickens testified that they are in the same “rough equivalence class.” The Court need not resolve this dispute because Android differs in other ways, such as lack of app certification and weaker sandboxing, that could affect malware rates independent of app distribution. *E.g.*, DX-4975.008; DX-4956.004; DX-4959; *see* Trial Tr. (Mickens) 2558:16–2260:8, 2630:12–2631:11; Trial Tr. (Rubin) 3774:3–2777:16.

⁵²⁷ Ex. Expert 11 (Rubin) ¶ 87. Of course, third-party app stores could also have increased security than Apple. For example, a Disney app store would plausibly screen apps more rigorously than Apple. Trial Tr. (Mickens) 2697:12–21.

malware to operate (either accidentally or as a “rogue” app store), a social engineering attack has a chance to work.⁵²⁸

Second, with respect to sideloading, app review is likely impossible and thus could not prevent social engineering attacks. Apple currently prevents direct distribution from the web using technical measures. If those measures were lifted, users could download—and thus could be tricked into downloading—directly from the open web. Although Epic Games presents some alternative methods that could be used to prevent malicious direct distribution (which are discussed below), there is little dispute that completely unrestricted sideloading would increase malware infections.⁵²⁹

Thus, the Court finds that centralized distribution through the App Store increases security in the “narrow” sense, primarily by thwarting social engineering attacks.

ii. “Broad” Security: Privacy, Quality, Trustworthiness

With respect to a “broader” definition of security, there is less dispute that app distribution restrictions help ensure privacy, quality, and trustworthiness. This again, stems primarily from human app review.

Privacy: Dr. Mickens agrees that computers “lack a generic way to detect which instances of user-submitted touchscreen data contain private information.” While the OS can detect app access to computer-generated private data (camera roll), it lacks the capacity to distinguish private from nonprivate user entries. Dr. Mickens agrees that human app review can aid in this process, but opines that Apple does a poor job in practice. His only evidence for this is a Wall Street Journal that reports user tracking on popular iOS apps; he did not analyze any internal Apple data for this opinion.⁵³⁰

Apple, by contrast, proffers some evidence that the App Store imposes heightened privacy requirements. For instance, Apple requires developers to publish “privacy labels” that disclose data collection as a condition of being listed on the App Store. It also adopts the stricter privacy policies required by the European Union worldwide, including user opt-out. Not all developers like these requirements; presumably because it impacts their own bottom line. Thus, privacy concerns may be more at risk with loosened app distribution restrictions. Under the

⁵²⁸ DX-4401.005; DX-4975.008; Ex. Expert 11 (Rubin) ¶¶ 47–49, 87–89. The parties also debate whether centralization of app review increases or decreases its effectiveness. Dr. Mickens opines that having many stores perform app review puts more “eyeballs” on the problem and decreases the burden on any one store. Dr. Rubin opines that it fragments learning and makes each store less knowledgeable. The Court finds both effects plausible, but lacks evidence on their comparative magnitude. Trial Tr. (Mickens) 2702:7–21; Ex. Expert 11 (Rubin) ¶ 93.

⁵²⁹ Trial Tr. (Federighi) 3388:24–3389:12, 3416:6–16; Trial Tr. (Cook) 3884:22–3885:11; Ex. Expert 11 (Rubin) ¶ 54; *see also* Trial Tr. (Mickens) 2709:23–2710:2 (describing this model as “absolute mayhem”).

⁵³⁰ Ex. Expert 5 (Mickens) ¶¶ 71–75; Trial Tr. (Mickens) 2631:16–21.

current model, large developers who rely on advertising for monetization must comply or leave the App Store to avoid these requirements.⁵³¹ Accordingly, privacy, more than other issues, likely benefits from some app distribution restrictions.⁵³²

Quality: A variety of content may be safe but objectionable, including pornography, gambling, and inappropriate marketing to children. Mr. Kosmynka testified that human app review is necessary to detect such content because computers cannot do it alone. Importantly, offensiveness is highly context dependent, which makes it difficult to automate. For example, nudity may be appropriate in a medical app but inappropriate in other contexts.⁵³³

Epic Games responds that Apple’s app review still allows objectionable apps. For example, it points that school shooting games have appeared on the App Store.⁵³⁴ However, this data is largely anecdotal and fails to provide a comparison to the “but-for” world where app review did not take place. Thus, app distribution restrictions likely reduce offensive content available on Apple’s devices.

Trustworthiness: App review also protects against scams and other fraud, such as pirated or copycat apps. Dr. Mickens did not consider this aspect in his security analysis and admitted that his opinion about the value of human app review may change if these issues are

⁵³¹ As explained above, the evidence suggests that decentralized distribution benefits primarily large developers, who do not need to rely on a centralized app store to be discovered. While these developers are unlikely to sell outright malware, they are quite likely to monetize user data, which makes privacy a particularly sensitive issue.

⁵³² DX-5335.015; Trial Tr. (Cook) 3847:15–3848:21; Trial Tr. (Federighi) 3408:2–3410:4, 3422:17–2423:15; Trial Tr. (Schiller) 3166:6–15; Ex. Expert 11 (Rubin) ¶ 84. Apple also cites “app tracking transparency” as a feature that protects user privacy. The record is not clear, however, whether this feature is implemented by the App Store or by the OS. To the extent that it is implemented by the OS, app review may play a more limited role in ensuring that apps do not incentivize relinquishing privacy. Trial Tr. (Schiller) 3166:22–3167:7; Trial Tr. (Federighi) 3407:73–408:1, 3410:5–9.

⁵³³ PX-0131; PX-1938; PX-1939; Trial Tr. (Kosmynka) 1085:19–1087:8, 1108:20–1109:11; Trial Tr. (Schiller) 3154:7–24; *see also* Trial Tr. (Mickens) 3673:16–23 (agreeing that system-level protections do not protect against inappropriate content).

⁵³⁴ The alleged “BDSM” apps proved hollow and demonstrates the problem with highly provocative and sexual photos as an enticement to download apps geared towards dating that ultimately does not contain pornographic material. This merely reinforces the subjective and context-dependent nature of “objectionable” content. *See* PX-0131; PX-1938; PX-1939. Trial Tr. (Kosmynka) 1085:19–1087:8, 1108:20–1109:11; Trial Tr. (Schiller) 3154:7–24.

included. He also agreed that system-level protections do not protect users against this type of content, which confirms that human review is necessary.⁵³⁵

As with objectionable content, Epic Games responds by showing that scams still slip through app review.⁵³⁶ For the same reasons, this anecdotal evidence does not show that scams and other fraud would not be higher without app review. Thus, the Court finds that app distribution restrictions increase security in the “broad” sense by allowing Apple to filter fraud, objectionable content, and piracy during app review while imposing heightened requirements for privacy.

iii. Impact on Market

These protections have an impact on users, developers, and Apple. First, app review provides Apple with a competitive differentiator. When Apple first launched the App Store, it sought to “strike a really good path” between the dependability of a closed device and the ability to run third-party apps of a PC. As Mr. Jobs explained:

It is a dangerous world out there. There are mobile viruses of all sorts that people have to put up with and so we’ve tried to strike a really good path here. On one side you’ve got a closed device like the iPod, which always works. You pick it up, it always works because you don’t have to worry about third party apps mucking it up. And on the other side you’ve got a Windows PC where people spend a lot of time every day just getting it back up to where it’s usable and we want to take the best of both. We want to take the reliability and the dependability of that iPod and we want to take the ability to run third party apps from the PC world but without the malicious applications.⁵³⁷

Since then, security and privacy have remained a competitive differentiator for Apple. Mr. Cook testified that privacy is “a very key factor, one of the top factors who people choose Apple.” The documents bear this out: internal surveys show that security and privacy was an important aspect of an iPhone purchasing decision for 50% to 62% of users in most countries—and over 70% in India and Brazil—and an important part of an iPad purchasing decision for 76% to 89% of users. Indeed, Mr. Sweeney himself owns an iPhone in part because of its better security and privacy than Android.⁵³⁸

⁵³⁵ Trial Tr. (Kosmynka) 1088:18–1090:16; Trial Tr. (Mickens) 2673:2–7, 2673:24–2675:17, 2679:21–2680:1, 2685:8–18.0

⁵³⁶ *See, e.g.*, PX-0060; PX-0371.

⁵³⁷ PX-0880.025.

⁵³⁸ Trial Tr. (Cook) 3848:22–3849:7; Trial Tr. (Sweeney) 302:19–303:4; DX-4089.012; DX-3465.024.

Second, there is evidence that Apple's restrictions benefit users. As noted above, many users value their iOS devices for their privacy and security. As the result of having a trusted app environment, users make greater use of their devices, including by storing sensitive data and downloading new apps. The witnesses are unanimous that user security and privacy are valid procompetitive justifications.⁵³⁹

Third, the evidence on developers is mixed. On the one hand, developers experience delays and mistaken rejections that would not occur with sideloading or distribution through stores without app review. On the other hand, developers benefit from the safe environment created by the App Store. Based on a trusted environment, users download apps freely and without care, which benefits small and new developers whose apps might not be downloaded if users felt concern about safety. This is consistent with the indirect network effects identified by Dr. Schmalensee: the small burden on developers maintains a healthy ecosystem that ultimately benefits both sides. Thus, the evidence shows that developers both benefit and suffer from app distribution restrictions.⁵⁴⁰

iv. Alternatives

Epic Games argues that the security and privacy benefits described above can be achieved without app distribution restrictions. As explained, most of the benefits derive from app review, which screens for social engineering attacks, filters fraud and offensive content, and impose heightened privacy requirements. Epic Games argues that the same benefits can be achieved in other ways. It focuses on two alternative models.

First, under an "enterprise program" model, Apple could focus on certifying app stores instead of apps. The Enterprise Program is an existing model for distributing apps on iOS where companies apply to distribute apps within its organization. Apple reviews the company and, if conditions are met, gives it a certificate that allows it to sign apps for distribution. Although the program has occasionally been abused, it shows that Apple could shift its review from apps to app stores, while continuing to impose standards for privacy and security.⁵⁴¹

⁵³⁹ See Trial Tr. (Evans) 1689:22–24 (“[p]rotecting iPhone users from security threats is a procompetitive benefit”), 2415:10–13 (same for protecting users from offensive content); Trial Tr. (Sweeney) 193:3–9 (recognizing importance of privacy and security); Trial Tr. (Federighi) 3421:19–3422:7 (describing importance of security to ecosystem).

⁵⁴⁰ Trial Tr. (Simon) 384:7–385:8; Trial Tr. (Grant) 727:22–730:4; Ex. Depo. (Ong) 62:15–65:25; Trial Tr. (Federighi) 3421:16–3422:7; Ex. Expert 8 (Schmalensee) ¶ 52.

⁵⁴¹ Ex. Expert 5 (Mickens) ¶¶ 56–58; Trial Tr. (Mickens) 2585:24–2586:19, 2667:12–2670:1; Trial Tr. (Federighi) 3412:23–3415:17; Trial Tr. (Schiller) 3145:22–3146:8. For example, Apple could demand that third-party app stores require “privacy labels” and fraud prevention as a condition of certification. Indeed, Apple already implements this model for social media apps, which can (and do) host objectionable content but which implement their own content moderation. Trial Tr. (Evans) 2418:14–2419:1; Trial Tr. (Federighi) 3469:9–25 (noting that Parler was removed from the App Store based on inadequate content moderation).

Second, under a “notarization” model, Apple could continue to review apps without limiting distribution. The notarization model is currently used on macOS. There, Apple scans apps using automatic tools and “notarizes” them as safe before they can be distributed without a warning. Apps can still be distributed through the Mac store (with complete app review) or with a warning if not notarized, but notarization provides a “third path” between full app review and unrestricted distribution. In theory, notarization review could be expanded to include some of the checks Apple currently performs in the App Store, such as human review.⁵⁴²

The notarization model is particularly compelling because Apple contemplated a similar model when developing iOS. iOS is based on macOS and share the same kernel. Documents show that Apple initially considered using app signing for security while allowing developers to distribute freely on iOS. As one document explains, “[app] [s]igning does not imply a specific distribution method, and it’s left as a policy decision as to whether signed applications are posted to the online store, or we allow developers to distribute on their own.” This shows that Apple could continue performing app review even if distribution restrictions were loosened.⁵⁴³

Apple responds to Epic Games’ proposed alternatives in several ways. First, it disputes that the Enterprise Program provides a comparable model because it is used primarily for employers, who rarely want to hack their own employees. That is factually true, but provides little insight as to why a modified model could not work. Apple points to unspecified evidence that the Enterprise Program has been used to distribute malware. As with Epic Games’ evidence of fraud on the App Store, this does not show that the program is unsecure as a general matter.⁵⁴⁴

Second, it claims that Mac faces a different threat model and has more malware than iOS. Mr. Federighi testified that users download apps more casually on mobile devices than on computers and frequently use them to store more valuable data. The Mac model was also adopted at a time when users expected to freely download from the Internet, which limited Apple’s ability to impose greater restrictions given customer expectations. In any case, Mr.

⁵⁴² Ex. Expert 5 (Mickens) ¶¶ 85–87; Trial Tr. (Federighi) 3380:19–3381:11, 3463:9–3467:16; *see* DX-5492.103–.104.

⁵⁴³ PX-2756; Trial Tr. (Federighi) 3358:9–21; Trial Tr. (Mickens) 2593:13–2594:15; Ex. Expert 5 (Mickens) ¶¶ 13, 46, 89–96; PX-0877.100–.300; PX-0875.002. Under the notarization model, Apple also retains the ability to revoke notarization and turn off developer accounts associated with malware. Depending on the scope of the option, this could address Mr. Federighi’s concern that decentralized distribution creates a “whack-a-mole” problem. Trial Tr. (Rubin) 3794:14–3795:8; Trial Tr. (Federighi) 3392:4–20, 3451:14–2452:6.

⁵⁴⁴ For instance, it is difficult to imagine that Microsoft would be a source of malware for iOS users. *See* Trial Tr. (Mickens) 2668:16–2671:15 (explaining that the Enterprise Program is just a “point in the design space”); Trial Tr. (Schiller) 3146:13–25.

Federighi testified that Mac has a “malware problem” compared to iOS. Even with notarization, 110 instances of malware broke through on the Mac in 2020.⁵⁴⁵

While Mr. Federighi’s Mac malware opinions may appear plausible, they appear to have emerged for the first time at trial which suggests he is stretching the truth for the sake of the argument. During deposition, he testified that he did not have any data on the relative rates of malware on notarized Mac apps compared to iOS apps. At trial, he acknowledged that Apple only has malware data collection tools for Mac, not for iOS, which raises the question of how he knows the relative rates. Prior to this lawsuit, Apple has consistently represented Mac as secure and safe from malware.⁵⁴⁶ Thus, the Court affords Mr. Federighi’s testimony on this topic little weight.

In any case, even if notarization is less secure on Mac, that only shows the limits of malware scanning. If Apple implemented a more fulsome review, similar to the type done on the App Store, there is no reason why the results would be different. Apple’s only response is that app review may not scale given developers’ expectation over timing. Given that app review is already required for all apps in the App Store, the scale itself does not appear to be a problem. The question is the amount of resources Apple allocates to the issue and supply of human reviewers. *See supra* Facts § I.C.4.

Ultimately, the Court finds persuasive that app review can be relatively independent of app distribution. As Mr. Federighi confirmed at trial, once an app has been reviewed, Apple can send it back to the developer to be distributed directly or in another store. Thus, even though unrestricted app distribution likely decreases security, alternative models are readily achievable to attain the same ends even if not currently employed.⁵⁴⁷

b. Intellectual Property

Turning to the intellectual property justification, the Court agrees with the general proposition that Apple is entitled to be paid for its intellectual property. The inquiry though does not end with the bald conclusion. Apple provides evidence that it invests enormous sums into developing new tools and features for iOS. Apple’s R&D spending in FY 2020 was \$18.8 billion.⁵⁴⁸ This spending runs the gamut from hardware features like an Accelerometer

⁵⁴⁵ Trial Tr. (Federighi) 3362:2–3365:3, 3389:14–3390:8, 3393:4–25, 3394:1–19, 3401:3–24. Mr. Federighi also expressed confusion about how an enterprise model would work, including how a trustworthy store would be determined. Trial Tr. (Federighi) 3416:17–3417:7. These problems appear comparable determining app trustworthiness, which Apple has managed with adequate success, as described above.

⁵⁴⁶ *Id.* 3432:19–3434:4, 3394:4–22; *see, e.g.*, PX-0741.100, .500.

⁵⁴⁷ Trial Tr. (Federighi) 3510:5–15.

⁵⁴⁸ This number, which is taken from Apple’s SEC filings, covers Apple’s entire business. Internal financial documents suggest that only a small portion of this spending goes to

developed in 2007, to a gyroscope in 2010, stereo speakers in 2016, to LiDAR in 2020, all of which expand the device functions to software features that improve processing speed to combinations of the two, such as FaceTime. It also includes thousands of developer tools, SDKs, and APIs (150,000 today), many of which are directed specifically at game developers. For example, Metal is a tool that allows developers to create powerful computer graphics. Additionally, Apple has invested in longer battery life, and over the last decade, core processing units (CPU) have increased one hundredfold and relative graphic performance, one thousandfold. Mr. Schiller testified that each of these features enables game developers to create new and innovative games.⁵⁴⁹

Epic Games does not venture to argue that Apple is not entitled to be paid for its intellectual property, but rather claims that these investments have nothing to do with the App Store *specifically*. Apple disagrees. As with other issues in this trial, the answer is somewhere in between the two extremes but the evidence was not presented in a way to make a decision with precision. That said, the record is devoid of evidence that Apple set its 30% commission rate as a calculation related to the value of its intellectual property rights. Nor is there any evidence that Apple could not create a tiered licensing scheme which would better correlate the value of its intellectual property to the various levels of use by developers.⁵⁵⁰ More specifically, the evidentiary record is silent as to whether the \$99 fee paid by developers whose entire app is “free,” like banks or other commercial entities, is correlated to the intellectual property as compared to the gaming developers who are paying 30% on each IAP transaction and who appear to be subsidizing most of the other app developers.

Thus, the Court finds that with respect to the 30% commission rate specifically, Apple’s arguments are pretextual, but not to the exclusion of some measure of compensation.

B. Anticompetitive Effects: In-App Payment Restrictions

1. Effects

Turning to the evidence regarding in-app payment restrictions, Epic Games focuses on the effects on price and quality. Although in-app payment processing is an integrated part of the App Store, the Court reviews its effects because third-party app stores could compete on in-app payment processing—and thus rectify some of the effects—if app distribution restrictions were loosened. The Court also considers procompetitive justifications unique to payment restrictions

services like the iTunes store. *Compare* DX-4581.026 (total R&D) *with* PX-2385.024 (R&D breakdown).

⁵⁴⁹ DX-4581.026; Ex. Expert 12 (Malackowski) ¶¶ 22, 29–33; Trial Tr. (Schiller) 2878:2–2902:10. Other examples included a retina display in 2010, Taptic Engine in 2014, and Neural Engine in 2017. None of these developments are allocated to the App Store but all support games and other applications. Trial Tr. (Schiller) 2878:6–2885:6, 2893:3–2895:15.

⁵⁵⁰ *See* Trial Tr. (Malackowski) 3662:13–17.

as those relative to app distribution restrictions apply here as well. Lastly, the Court considers the anti-steering provision, which presents a separate subissue.⁵⁵¹

Starting with Epic Games’ two arguments, the Court notes that it has already discussed them, which shows both pro- and anti- competitive benefits.⁵⁵² *See supra* Facts § V.A. Moreover, the analysis included the tradeoffs within privacy considerations. *Id.*

Apple’s experts opine on other benefits, in addition to fraud prevention. With respect to the user side, Dr. Schmalensee opines that “IAP supports the ability of users to redownload apps and in-app purchase on new devices, share subscriptions and in-app features with family members, view their entire purchase history, and manage subscriptions from one place on their phone,” all of which benefits users. While true, these benefits are also a reflection of the ecosystem. Dr. Athey counters that multi-platform payment processors would benefit users more by enabling the same migration, control, and sharing across platforms.⁵⁵³ On the gaming side, much of this is being done through cross-wallet and cross-platform play.

On the developer side, Apple argues IAP helps streamline in-app payment functions. By providing a consistent and trusted user experience, IAP encourages users to spend freely, which benefits developers through indirect network effects and has resulted in millions of dollars of revenue. Again, as noted above, the ability to profit from impulse purchasing can be viewed as both a sword and a shield in this context. For those developers who rely more heavily on Apple, the benefit is greater than those like Epic Games who would prefer for the revenue stream to be direct.

Beyond this significant feature, it is unclear what else IAP provides to developers. Apple agrees that it is not a payment processor; Apple delegates actual payment processing to third-parties, such as Visa. Mr. Fischer testified that IAP provides features as part of the “commerce engine,” but all of those features relate to users or Apple. Indeed, Dr. Evans shows that IAP does

⁵⁵¹ As with the app distribution restrictions, the Court uses “app” interchangeably with “game” and does not distinguish game and non-game developers here. There is no evidence that gamers experience the effects differently, and they are more likely to be affected by the restrictions because of iOS games’ disproportionate use of IAP. *See supra* Facts §§ II.B.3, V.A.

⁵⁵² Ex. Depo. (Ong) 169:24–173:06; *see also* Trial Tr. (Sweeney) 128:22–24; PX-2362.300; Ex. Expert 8 (Schmalensee) ¶ 150; Ex. Expert 11 (Rubin) ¶ 127.

⁵⁵³ Ex. Expert 8 (Schmalensee) ¶ 150; Trial Tr. (Schmalensee) 1894:11–1895:12; Trial Tr. (Schiller) 3187:1–6; Ex. Expert 4 (Athey) ¶¶ 76–78; *cf.* PX-2235.004 (email noting difficulty of multi-platform in-app payments). Epic Games also argues that innovative features are precluded, such as carrier billing, but the evidence on this point is scant. *See* PX-2302.013; Trial Tr. (Evans) 1608:20–1609:12.

nothing technically aside from returning payment information.⁵⁵⁴ Thus, there is no evidence that IAP provides developers with any unique features.⁵⁵⁵

Apple cites three additional procompetitive business justifications for its payment processing restrictions. As with app distribution, Apple cites (i) security, including privacy and fraud prevention, (ii) collection of its commission, and (iii) compensation for its intellectual property. The Court addresses each justification only to the extent not already discussed above.

2. Business Justifications

a. Security

Dr. Rubin opines that by maintaining all transaction data in one place, *i.e.*, centralization, Apple is better able to detect new patterns in fraudulent transactions using algorithms. Dr. Rubin also claims that Apple benefits from its visibility into the entire transaction, which allows it to verify certain transactions.⁵⁵⁶

As explained above, the Court agrees that decentralization may decrease security in some instances. The other arguments cut both ways. For instance, with respect to scale and fraud mining, Dr. Rubin suggests that having more “data points” will always lead to better fraud detection. Apple admits, however, that IAP is not the largest in-app payment service because it processes at most 3% of in-app purchases.⁵⁵⁷ Thus, to the extent that scale allows Apple to better detect fraud, other companies could do it better because they process more transactions.

⁵⁵⁴ In its proposed findings of fact, Apple claims that IAP helps developers with currency conversion and tax collection, but its record citations do not support that claim. *See* Apple FOF ¶ 692 (citing Ex. Expert 8 (Schmalensee) ¶¶ 153–154, which does not discuss these features).

⁵⁵⁵ Ex. Depo. (Forstall) 252:21–254:4; Trial Tr. (Schiller) 2798:14–19; Ex. Expert 8 (Schmalensee) ¶¶ 152, 154; Ex. Expert 1 (Evans) ¶ 229. Apple raises three additional arguments for IAP. First, it claims that the introduction of IAP “unlocked” the freemium model of monetization. Ex. Expert 8 (Schmalensee) ¶ 134. The parties dispute whether developers used this model on iOS before IAP. Either way, Apple does not claim that freemium requires IAP at present time (as opposed to some other in-app payment processor), so this does not present a *current* procompetitive benefit. Second, Dr. Schmalensee opines that IAP is “essentially free” to developers, who would need to build their own systems or obtain third-party services for payment processing otherwise. *Id.* ¶ 152. In light of Apple’s 30% commission, the Court is not persuaded that developers could not obtain these features more cheaply from other companies. Last, Apple claims that IAP helps prevent fraud and ensure privacy. This feature is addressed in the next section as a procompetitive justification.

⁵⁵⁶ Ex. Expert 11 (Rubin) ¶¶ 126–128.

⁵⁵⁷ Apple FOF ¶ 669; Ex. Expert 8 (Schmalensee) ¶ 170.

Similarly, with respect to data breaches, although a breach of a payment handler could expose some user data, a breach of Apple itself could expose all Apple users who use IAP.

One of Apple's strongest arguments for IAP security was that it can verify digital good transactions. Unlike for physical goods, Apple uses IAP after confirming that the developer has actually delivered a digital good to the user and is entitled to the corresponding payment. The evidence shows, however, that Apple itself does not perform the confirmation. Apple's Head of Pricing, Mr. Grey, testified that Apple simply asks the developer to confirm that delivery occurred and then issues a receipt. Apple has not shown how the process is any different than other payment processors, and any potential for fraud prevention is not put into practice.⁵⁵⁸

b. Commission Collection

Next, Apple claims that IAP provides the most efficient method for collecting its commission. Dr. Schmalensee opines that without IAP, Apple would have to rely on sellers to remit its 30% commission, with little recourse other than a lawsuit if the money was withheld. Due to the sheer volume of transactions on the App Store, this process could quickly become unwieldy.⁵⁵⁹

Epic Games does not directly dispute these claims. Instead, Epic Games challenges Apple's entitlement to a 30% commission in the first place.⁵⁶⁰ Evidence exists to support both views as discussed above. *See supra* Facts §§ I.C.3., II.C., IV.A. The fact of commission is separate from the actual amount of the collection, which the Court addresses next.

A corollary point to this topic concerns Apple's restrictions on developers' ability to provide consumers with information about their transactions. Guideline Section 3.1.1 states that apps "may not include buttons, external links, or other calls to action that direct customers to purchasing mechanism other than in-app purchase."⁵⁶¹ This guideline does not prohibit steering toward purchasing mechanisms outside the App Store or its apps, such as on social media, as long as it does not target iOS users but other provisions imply as much.⁵⁶²

The competitive effects and justifications for the anti-steering provision are coextensive with those described for Apple's commission previously. *See supra* Facts § V.A.

⁵⁵⁸ Ex. Expert 11 (Rubin) ¶ 128; Trial Tr. (Fischer) 958:12–959:2; Ex. Depo. 12 (Gray) 112:18–114:10.

⁵⁵⁹ Ex. Expert 8 (Schmalensee) ¶¶ 138–139, 145–146.

⁵⁶⁰ Trial Tr. (Schiller) 2826:6–7; Ex. Depo. (Ong) 58:20–59:13, 152:4–152:23; *see also* Trial Tr. (Weissinger) 1314:11–22.

⁵⁶¹ PX-2790.010.

⁵⁶² *See* PX-0257; PX-2790.011; Trial Tr. (Lafontaine) 2055:12–2056:20; Trial Tr. (Schmalensee) 1911:1–12.

c. Value of the Intellectual Property

As described above, Apple has not adequately justified its 30% rate. Merely contending that its commission pays for the developer's use of the App Store platform, license to Apple's intellectual property, and access to Apple's user base only justifies a commission, not the rate itself. Nor is the rate issue addressed when Apple claims that it would be entitled to its commission even for games distributed outside the App Store because it provides the device and OS that brings users and developers together.⁵⁶³

As noted, no one credibly disputes that Apple and third-party developers act symbiotically. Apple gives developers an audience and developers make Apple's platform more attractive. Thus, Apple earns revenue each time a developer earns revenue creating a feedback loop. However, as revenues show, the ultimate effect appears to vary within developer groups depending on how a developer chooses to monetize its app.

Further, there is substantial evidence that Epic Games, and perhaps other larger developers, bring their own audience to iOS. Fortnite was already popular when it arrived on iOS and Apple sought exclusive Fortnite content to attract new users. *See supra* Facts §§ I.B.2.d, I.B.4. That said, Epic Games wanted Apple's user base, to which it did not have access, as it had already saturated its other options. Also, Match Group found that the majority of new users from the App Store organically searched for its apps (e.g., by typing in "Tinder"), while Apple contributed only 6% of discovery. For these developers, Apple's role in generating in-app purchases was "nothing" but it continued to receive a 30% commission on in-app purchases.⁵⁶⁴

C. Combined Effects

Because Apple has created an ecosystem with interlocking rules and regulations, it is difficult to evaluate any specific restriction in isolation or in a vacuum. Thus, looking at the combination of the challenged restrictions and Apple's justifications, and lack thereof, the Court finds that common threads run through Apple's practices which unreasonably restrains competition and harm consumers, namely the lack of information and transparency about policies which effect consumers' ability to find cheaper prices, increased customer service, and options regarding their purchases. Apple employs these policies so that it can extract supracompetitive commissions from this highly lucrative gaming industry. While the evidence remains thin as to other developers, the conclusion can likely be extended.

More specifically, by employing anti-steering provisions, consumers do not know what developers may be offering on their websites, including lower prices. Apple argues that consumers can provide emails to developers. However, there is no indication that consumers know that the developer does not already have the email or what the benefits are if the email was provided. For instance, Apple does not disclose that it serves as the sole source of communication for topics like refunds and other product-related issues and that direct

⁵⁶³ Apple FOF ¶ 572; Trial Tr. (Cook) 3863:6–3864:8.

⁵⁶⁴ Ex. Depo. (Ong) 58:20–61:07, 152:04–23; *see also* DX-3922; *supra* Facts §§ I.C.3.b., V.A.1.

registration through the web would also mean direct communication. Consumers do not know that if they subscribe to their favorite newspaper on the web, all the proceeds go to the newspaper, rather than the reduced amount by subscribing on the iOS device.

While some consumers may want the benefits Apple offers (*e.g.*, one-stop shopping, centralization of and easy access to all purchases, increased security due to centralized billing), Apple actively denies them the choice. These restrictions are also distinctly different from the brick-and-mortar situations. Apple created an innovative platform but it did not disclose its rules to the average consumer. Apple has used this lack of knowledge to exploit its position. Thus, loosening the restrictions will increase competition as it will force Apple to compete on the benefits of its centralized model or it will have to change its monetization model in a way that is actually tied to the value of its intellectual property.

PART II

APPLICATION OF FACTS TO THE LAW AND CONCLUSIONS THEREON

I. RELEVANT PRODUCT AND GEOGRAPHIC MARKET

A. Legal Framework

“A threshold step in any antitrust case is to accurately define the relevant market, which refers to ‘the area of effective competition.’” *FTC v. Qualcomm Inc.*, 969 F.3d 974, 992 (9th Cir. 2020) (“*Qualcomm*”) (quoting *Ohio v. Am. Express Co.* (“*Amex*”), 138 S. Ct. 2274, 2285 (2018)); *see also Image Tech. Servs., Inc. v. Eastman Kodak Co.*, 125 F.3d 1195, 1202 (9th Cir. 1997) (“*Image Tech Services II*”) (“The relevant market is the field in which meaningful competition is said to exist.”) (citation omitted). Monopoly power under the first element can be defined as “the power to control prices or exclude competition” and may be inferred from the defendant’s predominant market share in the relevant market. *United States v. Grinnell Corp.*, 384 U.S. 563, 571 (1966). In addition, “courts usually cannot properly apply the rule of reason without an accurate definition of the relevant market.” *Amex*, 138 S. Ct. at 2285. Without a relevant market definition, “there is no way to measure the defendant’s ability to lessen or destroy competition.” *Id.* (simplified).

“The relevant market must include both a geographic market and a product market.” *Hicks v. PGA Tour, Inc.*, 897 F.3d 1109, 1120 (9th Cir. 2018) (citation omitted). The latter “must encompass the product at issue as well as all economic substitutes for the product.” *Newcal Indus., Inc. v. Ikon Office Sol.*, 513 F.3d 1038, 1045 (9th Cir. 2008); *see also id.* (“The consumers do not define the boundaries of the market; the products or producers do [and] the market must encompass the product at issue as well as all economic substitutes for the product.”); P. Areeda & H. Hovenkamp, *Antitrust Law: An Analysis of Antitrust Principles and Their Application* § 530a (4th and 5th eds., 2021 Supp.) (“To define a market is to identify those producers providing customers of a defendant firm (or firms) with alternative sources for the defendant’s product or service.”). “Economic substitutes have a ‘reasonable interchangeability of use’ or sufficient ‘cross-elasticity of demand’ with the relevant product.” *Hicks*, 897 F.3d at 1120 (quoting *Newcal*, 513 F.3d at 1045); *see also United States v. E.I. DuPont de Nemours &*

Co., 351 U.S. 377, 404 (1956). “Including economic substitutes ensures that the relevant product market encompasses ‘the group or groups of sellers or producers who have actual or potential ability to deprive each other of significant levels of business.’” *Hicks*, 897 F.3d at 1120 (quoting *Thurman Indust., Inc. v. Pay ‘N Pak Stores, Inc.*, 875 F.2d 1369, 1374 (9th Cir. 1989)); *see also DuPont*, 351 U.S. at 393 (“Illegal power must be appraised in terms of the competitive market for the product.”).⁵⁶⁵

A plaintiff cannot ignore economic reality and “arbitrarily choose the product market relevant to its claims”; rather, the plaintiff must “justify any proposed market by defining it with reference to the rule of reasonable interchangeability and cross-elasticity of demand.” *Buccaneer Energy (USA) v. Gunnison Energy Corp.*, 846 F.3d 1297, 1313 (10th Cir. 2017) (internal quotation marks and citation omitted). The proper market definition “can be determined only after a factual inquiry into the commercial realities faced by consumers.” *High Tech. Careers v. San Jose Mercury News*, 996 F.2d 987, 990 (9th Cir. 1993) (internal quotation marks and citation omitted).

It is the plaintiff’s burden to establish the relevant product and geographic markets. *See Thurman Indust.*, 875 F.2d at 1373; *Fount-Wip, Inc. v. Reddi-Wip, Inc.*, 568 F.2d 1296, 1302 (9th Cir. 1978) (noting that plaintiffs bear the “burden of proof” to establish a relevant market). To meet that burden, a plaintiff must produce specific evidence supporting the proposed market definition that is “relevant to the particular legal issue being litigated.” *Areeda & Herbert Hovenkamp* § 533c; *see also Moore v. James H. Matthews & Co.*, 550 F.2d 1207, 1218–19 (9th Cir. 1977) (plaintiff failed to establish “the relevant product market” where it failed to introduce adequate evidence regarding “the products involved as to price, use, quality, and characteristics”); *United States v. H & R Block, Inc.*, 833 F. Supp. 2d 36, 64 (D.D.C. 2011) (“Courts correctly search for a relevant market—that is a market relevant to the particular legal issue being litigated.”) (simplified)).

B. Analysis

1. Relevant Product Market

Epic Games constructs a framework to argue that there are three separate product markets at issue. In the foremarket, Epic Games identifies the product market as one for “Smartphone Operating Systems.” Epic Games contends in turn that there are *two* derivative and relevant aftermarkets that flow from this initial foremarket, including the “iOS App Distribution” market and “iOS In-App Payment Solutions.” Epic Games logic flows as follows: the iOS in-app

⁵⁶⁵ “Interchangeability implies that one product is roughly equivalent to another for the use to which it is put: while there may be some degree of preference for the one over the other, either would work effectively.” *Queen City Pizza, Inc. v. Domino’s Pizza, Inc.*, 124 F.3d 430, 437 (3d Cir. 1997) (internal quotation marks and citation omitted). For example, “[a] person needing transportation to work could buy a Ford or Chevrolet automobile, or could elect to ride a horse or bicycle, assuming those options were feasible.” *Id.* (internal quotation marks and citation omitted).

payment solutions market is an aftermarket of the iOS app distribution market which is further an aftermarket of the smartphone operating systems foremarket.

Apple, on the other hand, contends that there is only one relevant product: digital game transactions. This includes any and all digital gaming transactions made on any gaming platform. The Court has discussed the factual profiles of each of the proffer, *see supra* Facts § II, and turns to the determination here.

The parties agree that the Court must determine which products or services are in “the area of effective competition” to define the product market. *Amex*, 138 S. Ct. at 2285; *Thurman Indus.*, 875 F.2d at 1374 (“For antitrust purposes, defining the product market involves identification of the field of competition: the group or groups of sellers or producers who have actual or potential ability to deprive each other of significant levels of business.” (citation omitted)). The relevant product market “must encompass the product at issue as well as all economic substitutes for the product.” *Newcal*, 513 F.3d at 1045. “Economic substitutes have a ‘reasonable interchangeability of use’ or sufficient ‘cross-elasticity of demand’ with the relevant product.” *Hicks*, 897 F.3d at 1120 (quoting *Brown Shoe v. United States*, 370 U.S. 294, 325 (1962)); *DuPont*, 351 U.S. at 404.

The Court begins with Apple’s product market definition as it more closely aligns with the Court’s conclusion. Then the Court discusses the reasons why Epic Games has not properly defined the relevant product market.

a. Apple’s Product Market Theory

As a threshold issue, the Court considers whether the App Store provides two-sided transaction services or as Epic Games argues “distribution services.”⁵⁶⁶ The Supreme Court has seemingly resolved the question: two-sided transaction platforms sell transactions. In two-sided markets, a seller “offers different products or services to two different groups who both depend on the platform to intermediate between them.” *Amex*, 138 S. Ct. at 2280. Here, try as it might, Epic Games cannot avoid the obvious. Plaintiff only sells to iOS users through the App Store on Apple’s platform. No other channel exists for the transaction to characterize the market as one involving “distribution services.”

Plaintiff’s reliance on Dr. Evans’ testimony to the contrary does not persuade. First, Dr. Evans’ testimony was internally inconsistent. He agrees that the App Store is a “two-sided transaction platform” and includes the features characteristic of two-sided transaction platforms. Although he testified that Apple also provides services to facilitate those transactions, those services are coextensive with “transactions” under his definition.⁵⁶⁷ Thus, there is no substantive difference between “transactions” and “services” to facilitate those transactions. The

⁵⁶⁶ Trial Tr. (Evans) 1454:11–16, 1457:10–1458:25, 1707:7–17; Trial Tr. (Schmalensee) 1955:3–23.

⁵⁶⁷ *See, e.g.*, Trial Tr. (Evans) 1612:7–9, 1634:2–1635:25; Trial Tr. (Schmalensee) 1882:24–1883:2; Trial Tr. (Lafontaine) 2031:25–2032:3, 2037:15–16; Ex. Expert 8 (Schmalensee) ¶ 55.

semantic difference does not warrant departure from Supreme Court precedent.⁵⁶⁸ Second, distribution services may improperly imply that only developers consume Apple’s products. The evidence is to the contrary. By contrast, all of the experts agree that both users and developers consume App Store transactions.

Accordingly, the Court finds that the relevant App Store product is transactions, not services, but that providing transactions may include facilitating services (matchmaking, developer support, etc.).⁵⁶⁹

i. Apps or Digital Game Transactions?

Next, the Court considers whether to narrow the scope of the transactions in terms of defining the product market. “In limited settings . . . the relevant product market may be narrowed beyond the boundaries of physical interchangeability and cross-price elasticity to account for identifiable submarkets or product clusters.” *Thurman Indus.*, 875 F.2d at 1374. A submarket is “a small part of the general market of substitutable products” and “is economically distinct from the general product market.” *Newcal*, 513 F.3d at 1045. Although there are “several ‘practical indicia’ of an economically distinct submarket,” including “industry or public recognition of the submarket as a separate economic entity, the product’s peculiar characteristics and uses, unique production facilities, distinct customers, distinct prices, sensitivity to price changes, and specialized vendors,” *id.* (quoting *Brown Shoe*, 370 U.S. at 325), they are “practical aids for identifying the areas of actual or potential competition” and “their presence or absence does not decide automatically the submarket issue.” *Thurman Indus.*, 875 F.2d at 1375 (citations omitted). The Court considers these factors in its evaluation.

Having considered and reviewed the evidence, the Court concludes based on its earlier findings of facts that the appropriate submarket to consider is digital game transactions as compared to general non-gaming apps. *See supra* Facts § II.B.3. Indeed, the Court concluded that there were nine indicia indicating a submarket for gaming apps as opposed to non-gaming apps: (i) the App Store’s business model is fundamentally built upon lucrative gaming transactions; (ii) gaming apps constitute a significant majority of the App Store’s revenues; (iii) both the gaming, mobile, and software industry as well as the general public recognize a distinction between gaming apps and non-gaming apps; (iv) gaming apps and their transactions exhibit peculiar characteristics and users; (v) game app developers often employ specialized technology inherent and unique to that industry in the development of their product; (vi) game apps further have distinct producers—game developers—that generally specialize in the production of *only* gaming apps; (vii) game apps are subject to distinct pricing structures as compared to other categories of apps; (viii) games and gaming transactions are sold by specialized vendors; and (ix) game apps are subject to unique and emerging competitive pressures, that differs in both kind and degree from the competition in the market for non-gaming

⁵⁶⁸ *See* Trial Tr. (Evans) 1612:7–9, 1634:2–1635:25; *accord* Trial Tr. (Schmalensee) 1954:3–9 (equating transactions with “matchmaking” services), 1940:23–25 (agreeing that Dr. Evans analyzed the App Store as a two-sided platform).

⁵⁶⁹ *See, e.g.*, Ex. Expert 8 (Schmalensee) ¶¶ 55–56; Trial Tr. (Evans) 1707:2–17.

apps. The Court does not reiterate here the detail except to note the following significant points.⁵⁷⁰

The evidence was undisputed that over 80% of apps in the App Store are free. For those apps, the user pays nothing either inside the app or at the initial download. The developer also pays nothing aside from an up-front \$99 developer fee. Apple thus does not collect commissions on those transactions. Moreover, many of those apps are subject to special treatment, such as the “reader” rule, that allows them to bypass Apple’s restrictions and commissions altogether. These differences create economic distinctions between the two categories. Finally, there is insufficient evidence that most apps are impacted by Apple’s alleged anticompetitive conduct.⁵⁷¹

⁵⁷⁰ Dr. Lafontaine suggests that combining game and non-game transactions would require a “clustering” analysis to show that they are subject to the same competitive pressures. Ex. Expert 7 (Lafontaine) ¶¶ 33–35. The Court does not address the issue here because clustering is not necessary to determine that game transactions are the proper focus.

⁵⁷¹ Ex. Expert 6 (Hitt) ¶¶ 118, 121; DX-4178.006; PX-0059.007. Besides games, the other category of apps disproportionately affected by Apple’s conduct are subscription services. DX-4178.006; DX-4526.021. There are good reasons not to include those apps in the current litigation. First, Epic Games did not sell subscription services when *Fortnite* was on the iOS platform; their representation in the case is limited to third parties. Only one of those third parties testified at trial, so the Court lacks a full picture of the true opinions of these companies. Games and subscription apps in general are distinct, with little overlap among the popular examples. Compare PX-0608.015 with *id.* at .016.

Second, many subscription services are subject to special rules, such as the “reader rule” that permits users to access app content purchased outside iOS on their Apple devices. Indeed, several large subscription providers (*e.g.*, Spotify and Netflix) have stopped offering subscriptions through the App Store. Although games are subject to a similar “multiplatform rule,” the rule has only been in place since 2018 and the record is mixed whether game developers may be more or less able to similarly steer consumers to web transactions. Ex. Expert 6 (Hitt) ¶¶ 101–105; Trial Tr. (Schiller) 2808:6–2809:3; Trial Tr. (Sweeney) 110:12–111:1.

Third, and finally, subscription providers may present different security challenges than game stores. Mr. Kosmyinka testified that games are different than passive content because they add to or require the functionality of the smartphone. Mr. Schiller confirmed that Apple allows “stores within a store” that contain purely passive content, such as books and music. Thus, Apple’s procompetitive justifications may be significantly different for game and non-game stores and apps. Trial Tr. (Kosmyinka) 1073:7–1074:18; Trial Tr. (Schiller) 3115:11–3117:7; Trial Tr. (Federighi) 3429:12–3430:8.

Accordingly, the Court declines to consider subscriptions in this lawsuit because they are a separate submarket for which there is insufficient evidence.

By contrast, game apps are disproportionately likely to use in-app purchases for monetization. Over 98% of Apple’s in-app purchase revenue came from games in 2018 to 2019. Moreover, game transactions overall accounted for 76% of Apple’s App Store revenues in 2017, 62.9% in 2018, and 68% in 2020. Game commissions are also substantially higher than average. Thus, in most economic ways, and in particular with respect to the challenged conduct, the App Store is primarily a *game* store and secondarily an “every other” app store.⁵⁷²

Game transactions are also widely recognized as belonging to a separate market. The App Store, Google Play, and Amazon Appstore all include separate “tabs” for apps and games which reflects that consumers view them differently. Apple analyzes them separately with different heads of business for games and non-game apps. The developers for game apps also tend to be distinct, specializing in games with little revenue from non-game apps.⁵⁷³

Finally, the App Store is also built upon specialized consumers—those iOS consumers who play video games on iOS devices. As summarized above, it is iOS consumers who make frequent in-app purchases within gaming apps who account for the large majority of Apple’s revenues in the App Store. *See supra* Facts § 1.C.6.⁵⁷⁴ In other words, there is a specialized subset of iOS gaming consumers who are generating and accounting for a significantly disproportionate number of App Store billings and revenue.

Accordingly, between digital game transactions and all app transactions, the relevant product is game transactions. Contrary to Epic Games’ suggestion, that is not because plaintiff sells games. Rather, it is because game transactions are disproportionately affected by Apple’s challenged conduct, overwhelmingly subsidize other apps, and are recognized as a distinct submarket. Obviously, Epic Games and Apple compete in that market space. That Epic Games is in the market was the impetus for the analysis, not the reason for the conclusion.

⁵⁷² Ex. Expert 6 (Hitt) ¶¶ 117, 120–24; DX-4178.006; PX-0059.007; Trial Tr. (Schmid) 3226:7–12.

⁵⁷³ Ex. Expert 6 (Hitt) ¶¶ 125–27; DX-5552; Trial Tr. (Schmid) 3205:4–11, 3226:1–22, 3349:24–3352:3. As the Court noted, the limited record also shows that the Google Play app store similarly is constructed upon the same game transactions as the App Store. *See* DX-3913.007. Apple also argues that games are subject to unique competitive pressures, with specialized vendors and emerging dynamic competition. Ex. Expert 8 (Schmalensee) ¶ 104. The Court addresses this evidence below.

⁵⁷⁴ That said, the evidence for a single distinct “gamer” demographic is inconclusive. For instance, Michael Schmid, testified that “gamers” as he defined them are a “very large percentage of users” including “all the people you speak with,” suggesting a generally diverse gaming consumer base. Trial Tr. (Schmid) 3350:5–3352:3; *see also id.* 3351:15–17 (“The Court: Well, are you saying that all app users are also gamers? The Witness: Certainly not.”). But even without distinct customer demographics, the fact that only certain set of iOS consumers (*i.e.*, those users who play games on iOS), as well as the separate set of developers and industry recognition as a distinct submarket make extrapolation from games to the whole market inappropriate.

ii. All Gaming Transactions or Mobile Gaming Transactions?

The last metric the Court considers is whether to limit the product market to all gaming transactions or only mobile gaming transactions. Apple argues for the former; Epic Games argues (as an alternative) for the latter. The Court is again guided by the “practical indicia” framework articulated in *Newcal* and *Brown Shoe*. The Court considers these factors in its evaluation.

Having considered and reviewed the evidence, the Court concludes based on its earlier findings of facts that the appropriate submarket to consider is the mobile gaming transactions market. *See supra* Facts § II.D. This relevant product market would include mobile game transactions on both mobile phone and tablet devices, which have the competitive advantage of mobility or portability as compared to other platforms and devices. *Id.* Indeed, as the Court summarized and found there, mobile gaming exhibits several of the practical indicia discussed in *Newcal* and *Brown Shoe* including industry and public recognition of the submarket as a separate economic entity, peculiar characteristics and uses, distinct customers and producers, and specialized vendors. The Court again does not repeat the entirety of the findings previously made, but discusses the more significant and relevant findings here:

Substantial evidence was presented showing that mobile gaming is a distinct submarket. As an initial matter, Apple’s own documents recognize mobile gaming as a submarket. One industry report describes mobile gaming as a “\$100 billion industry *by itself*” that accounts for 59% of global gaming revenue. While PC and console gaming has grown more slowly, mobile gaming has experienced double-digit growth driven by “the free-to-play model” with in-app purchases. “Remarkably,” this rapid growth “has not significantly cannibalized revenues from the PC or console gaming markets,” which suggests that consumers are not necessarily substituting among them.⁵⁷⁵ Another industry report describes distinct user bases for mobile gaming: young children, teenage girls, and older adults are disproportionately likely to be mobile gamers only. Multiplatform gaming, by contrast, is driven by teenage boys and young adults under 25.⁵⁷⁶

Even without Apple documents, the experts largely agree that mobile and non-mobile platforms provide different types of games. Dr. Hitt—whom Apple commissioned to show that game transactions are substitutable—ended up showing the opposite. In his original written direct testimony (which Apple withdrew after cross-examination), Dr. Hitt showed that only 12% and 16% of the most popular App Store games are available on consoles. Both Dr. Hitt’s and Dr. Cragg’s trial testimony remain in the record, and each shows that console games are largely separate from mobile games. Moreover, while Dr. Hitt originally opined that mobile games are available on PCs, his work could not be entirely reproduced during trial, as some of the games he

⁵⁷⁵ Although this might be due to the fact that mobile gaming first cannibalized the handheld and portable gaming market, which it may have supplanted and now surpassed. *See supra* n.391.

⁵⁷⁶ DX-3248.005, .008; DX-4170.008; *see also id.* at .024 (showing “segments” of gamers with multiple segments “primarily on mobile”).

listed as available on both platforms (PC and mobile platforms) could not be found. The fact that Apple tried and failed to show cross-availability of mobile games with PC indicates that they are distinct.⁵⁷⁷

This conclusion is bolstered in part by evidence from Dr. Cragg. Dr. Cragg finds that the most popular games on mobile are *only* available on mobile, with a few games also available on PCs. The types of games are also different, with many more casual games on mobile and core games on PC and console platforms. For those games that are available on multiple platforms, such as *Fortnite*, Dr. Cragg finds that the playing and spending on different platforms is complementary, rather than substitution-focused, because playing on another device *increases* the playtime and spending on the previous devices.⁵⁷⁸

Industry participants also support the conclusion. Microsoft documents show that mobile gaming generates more than half of the industry revenue and profits, compared to only a quarter for consoles and PCs each. Moreover, Ms. Wright testified that Microsoft does not view game transactions for cross-platform games on iOS devices as competition to transactions on its Xbox console. Although Ms. Wright also testified that mobile is “a segment of the game industry as a whole,” that is consistent with it being a separate submarket. By contrast, Steam is the largest game store on PCs. Mr. Cook’s lack of familiarity with it presents strong evidence that the iOS App Store does not compete with PC game stores.⁵⁷⁹

Finally, as the Court concluded in the findings of facts, the Court would not at this time find that the Switch or game streaming services are part of the mobile game transactions market. This is in part due to the underdeveloped record on these products, and in part on the relative recent introduction of these products to the market. While the record supports a finding that these are new entrants into the same market space as Apple and Google, whether these products ultimately are substitutable and reasonably interchangeable by consumers remain to be seen.

Accordingly, for the same reasons that game transactions, rather than app transactions in general, are the proper focus in this case, the Court finds that mobile gaming, including mobile devices and tablets,⁵⁸⁰ is a separate market from gaming in general. Thus, the relevant product market is mobile gaming transactions.

⁵⁷⁷ Ex. Expert 6 (Hitt) ¶¶ 31 & Fig. 3; Trial Tr. (Hitt) 2200:13–2201:18, 2207:6–2216:11; Ex. Expert 13 (Cragg) ¶¶ 34–39, 43–52.

⁵⁷⁸ Ex. Expert 13 Cragg ¶¶ 25–33, 79–81, Figs. 10–12; Trial Tr. (Schmid) 3207:8–18.

⁵⁷⁹ DX-5523.008–.009; Trial Tr. (Wright) 547:4–9, 549:14–21, 638:6–19; Trial Tr. (Cook) 3993:2–6.

⁵⁸⁰ As discussed in the findings of facts, *see supra* Facts §§ II.D–E., this would include both iOS and Android tablets and mobile phone devices.

b. Epic Games' Approach: Foremarket/Aftermarket Market Definition

The Court reaffirms here the fundamental factual flaws with Epic Games' market structure. *See supra* Facts §§ II.A–C. Without a product, there is no market for the non-product, and the requisite analysis cannot occur. Thus, where there is no product or market for smartphone operating systems, there are no derivative markets. The payment solutions aftermarket also fails for the independent reason that IAP is not a product for which there is a market. Further, Epic Games' aftermarket approach to market definition is inconsistent with its recognition that the App Store constitutes a two-sided transaction platform which it fails to properly analyze. *Id.*; *Amex*, 138 S. Ct. at 2287. Nonetheless, the Court addresses the additional problems with Epic Games' attempt to define the market with the confines of a single brand.

Determining whether a single-brand market is proper requires “a factual inquiry into the ‘commercial realities’ faced by consumers.” *Eastman Kodak Co. v. Image Tech. Servs.*, 504 U.S. 451, 482 (1992) (“*Eastman Kodak*”) (quoting, *Grinnell Corp.*, 384 U.S. at 572). “Single-brand markets are, at a minimum, extremely rare” and courts have rejected such market definitions “[e]ven where brand loyalty is intense.” *Apple, Inc. v. Psystar Corp.*, 586 F. Supp. 2d 1190, 1198 (N.D. Cal. 2008) (internal quotation marks and citation omitted). *But see id.* (“Antitrust markets consisting of just a single brand, however, are not per se prohibited In theory, it may be possible that, in rare and unforeseen circumstances, a relevant market may consist of only one brand of a product.”). Indeed, “[a] single brand is *never* a relevant market when the underlying product is fungible.” *Areeda & Hovenkamp* § 563d. “It is an understatement to say that single-brand markets are disfavored. From nearly the inception of modern antitrust law, the Supreme Court has expressed skepticism of single-brand markets[.]” *In re Am. Express Anti-Steering Rules Antitrust Litig.*, 361 F. Supp. 3d 324, 343 (E.D.N.Y. 2019); Herbert J. Hovenkamp, *Markets in IP & Antitrust*, 100 Geo. L.J. 2133, 2137 (2012) (“[A]ntitrust law has found that a single firm’s brand constitutes a relevant market in only a few situations.”).

Despite the foregoing, “in some instances one brand of a product can constitute a separate market.” *See Eastman Kodak*, 504 U.S. at 482; *see also Newcal*, 513 F.3d at 1048 (“[T]he law permits an antitrust claimant to restrict the relevant market to a single brand of the product at issue”). Antitrust law has continued to develop since *Eastman Kodak*. Beginning there, the Supreme Court considered whether summary judgment was appropriate for Kodak on a Sections 1 and 2 claims where the plaintiffs had argued that Kodak possessed monopoly power in the aftermarket of sales of parts and repair services, despite not having such power in the foremarket of equipment sales. 504 U.S. at 466–471. In affirming the Ninth Circuit’s reversal of summary judgment, the Supreme Court identified two factors that supported the aftermarket framework: the existence of significant (i) “information” costs and (ii) “switching costs.” *Id.* at 473.

As to the first, information costs, the Supreme Court noted that “[f]or the service-market price to affect equipment demand, consumers must inform themselves of the total cost of the ‘package’—[in *Eastman Kodak*] equipment, service, and parts—at the time of purchase; that is, consumers must engage in accurate lifecycle pricing.” *Id.* “Much of this information is difficult—some of it impossible—to acquire at the time of purchasing,” and that “even if consumers were capable of acquiring and processing the complex body of information, they may choose not to do so [as a]cquiring [such] information is expensive.” *Id.* at 473, 474. Indeed,

“[i]f the costs of service are small relative to the equipment price, or if consumers are more concerned about equipment capabilities than service costs, they may not find it cost efficient to compile the information.” *Id.* at 474–75.

As to the second factor, switching costs, the Supreme Court stated that “[i]f the cost of switching is high, consumers who already have purchased the equipment, and are thus ‘locked in,’ will tolerate some level of service-price increases before changing equipment brands.” *Id.* at 476. “Under this scenario, a seller profitably could maintain supracompetitive prices in the aftermarket if the switching costs were high relative to the increase in service prices, and the number of locked-in customers were high relative to the number of new purchasers.” *Id.* The Supreme Court further noted that this strategy was “likely to prove profitable” especially where a “seller could simply charge new customers below-marginal cost on the equipment and recoup the charges in service,”⁵⁸¹ or offer specific packages including “lifetime warranties or long-term service agreements that are not available to locked-in customers.” *Id.* at 476–477.

In sum, given the presence of these two factors, the Supreme Court found a question of fact “foil[ed] the simple assumption that the equipment and service markets act as pure complements to one another.” *Id.* at 477.

Since 1992, five circuit courts and numerous district courts refused to find a *Kodak*-type single-brand aftermarket where customers had knowledge of the alleged restrictive policies and were not subject to a post-purchase policy change. Big tech may ultimately convince the Supreme Court to change the calculus, but for now the state of antitrust law has that distinct parameter. The Court recounts the history.

Four years after *Eastman Kodak*, the Fifth Circuit in *United Farmers Ass’n, Inc. v. Farmers Insurance Exchange*, 89 F.3d 233, 238 (5th Cir. 1996) rejected a claim that insurance agents were “locked-in” to a particular insurance company because the agents “would clearly have become aware of [the alleged anticompetitive] policy long before they faced significant switching costs.” A year later the Sixth Circuit similarly found that an “antitrust plaintiff *cannot succeed* on a *Kodak*-type [single- brand-aftermarket] theory when the defendant has not changed its policy after locking-in some of its customers, and the defendant has been otherwise forthcoming about its pricing structure and service policies.” *PSI Repair Servs., Inc. v. Honeywell, Inc.*, 104 F.3d 811, 820 (6th Cir. 1997) (emphasis supplied). Rounding off the decade, the First Circuit found that “the easy availability of information” and “purely prospective nature” of an allegedly anticompetitive policy “helps to take [a] case out of *Kodak*’s precedential

⁵⁸¹ The Court notes that this identified problematic business model in *Eastman Kodak*, of selling the initial equipment near marginal cost and recouping profits in later service, appears to mirror more closely the gaming console’s business models for their console platforms (selling hardware near or at a loss and recouping through the sale of games and transactions) as opposed to Apple’s business model for its iOS platform (profit on both the hardware and transactions). *See supra* Facts §§ II.D.3.c.

orbit.” *SMS Sys. Maint. Servs., Inc. v. Digital Equip. Corp.*, 188 F.3d 11, 19 (1st Cir. 1999) (citation omitted).

Fast-forward to 2008, the Ninth Circuit in *Newcal* outlined four factors that could indicate whether an alleged market is a properly defined single-brand aftermarket under *Eastman Kodak* at the motion to dismiss stage. *See Newcal*, 513 F.3d at 1049–50. The first indicator of an aftermarket is that the market is “wholly derivative from and dependent on the primary market.” *Id.* at 1049. The second indicator is that the “illegal restraints of trade and illegal monopolization relate only to the aftermarket, not to the initial market.” *Id.* at 1050. The third indicator is that the defendant’s market power “flows from its relationship with its consumers” and the defendant did “not achieve market power in the aftermarket through contractual provisions that it obtains in the initial market.” *Id.* The fourth indicator is that “[c]ompetition in the initial market . . . does not necessarily suffice to discipline anticompetitive practices in the aftermarket.” *Id.*

While not explicitly repeated elsewhere, other circuits have aligned with the contours of *Newcal* and the foregoing cases regarding consumer knowledge and/or post-purchase policy changes. In 2014, the Federal Circuit weighed in concluding that “it is only the customers who learned about the [allegedly anticompetitive policy] after purchasing their equipment that are relevant to the ‘locked-in’ analysis.” *DSM Desotech, Inc. v. 3D Sys. Corp.*, 749 F.3d 1332, 1346 (Fed. Cir. 2014). Two years later the Third Circuit held that no *Kodak*-type aftermarket existed “when customers were put on clear notice that purchasing [defendant’s product] precluded use of [third-party] maintenance.” *Avaya Inc., RP v. Telecom Labs, Inc.*, 838 F.3d 354, 405 (3d Cir. 2016).

The breadth of antitrust law on the issue has counseled that currently “to establish a single-brand aftermarket under *Kodak* and *Newcal*, the restriction in the aftermarket must not have been sufficiently disclosed to consumers in advance to enable them to bind themselves to the restriction knowingly and voluntarily.” *Datel Holdings Ltd. v. Microsoft Corp.*, 712 F. Supp. 2d 974, 987 (N.D. Cal. 2010).⁵⁸² Indeed, “[m]arket imperfections” may “prevent consumers from discovering” that purchasing a product in the initial market could restrict their freedom to shop in the aftermarket. *Newcal*, 513 F.3d at 1048; *see also Red Lion Med. Safety, Inc. v. Ohmeda, Inc.*, 63 F. Supp. 2d 1218, 1231 (E.D. Cal. 1999) (“Information costs may be high, and a manufacturer may thus have considerable market power in the aftermarket, even in the absence of a change in policy.”); *Ward v. Apple Inc.*, Case No. 12-cv-05404-YGR, 2017 WL 1075049, at *7 (N.D. Cal. Mar. 22, 2017) (agreeing with *Red Lion*, 63 F. Supp. 2d at 1231–32, that a policy change is not necessary to find a valid single-brand market under *Newcal*). In other words, a plaintiff must show evidence “to rebut the economic presumption that [defendant’s] consumers

⁵⁸² *See also Teradata Corp. v. SAP SE*, No. 18-CV-03670, 2018 WL 6528009, at *16 (N.D. Cal. Dec. 12, 2018) (single-brand markets are possible only in situations in which customers face “restrictions that were undisclosed at the time of the purchase of the product from the primary market”).

make a knowing choice to restrict their aftermarket options when they decide in the initial (competitive) market to” purchase in the foremarket. *Newcal*, 513 F.3d at 1050.

With these principles in mind, the Court analyzes the evidence presented.

As noted, Epic Games created a construct that largely satisfies the *Newcal* test. By definition, distribution of iOS apps and iOS payment processing derive from Apple’s operating system (first factor). Next, Epic Games only identified restraints that related to the distribution and payment processing, so again, by design, they do not relate to the “market for Apple’s operating system” (second factor). Similarly, given that (i) consumers do not contractually agree to obtain apps only through the App Store when they purchase an iPhone; (ii) developers are contractually restricted in the aftermarket; and (iii) in light of the technical restrictions on iOS devices, Apple’s market power flows from its relationship with its consumers and Apple did not achieve market power in the aftermarket through contractual provisions that it obtains in the initial market (third indicator). Thus, three of the four indicators are fulfilled.⁵⁸³

It is within the last indicator that problems arise for Epic Games given antitrust jurisprudence. Issues of lock-in or switching costs, and notice or consumer knowledge, fall under the analysis of evaluating whether competition in the initial market suffices to discipline anticompetitive practices in the aftermarkets.

First, the evidence shows no material change in the conditions for accessing the App Store for either side of the platform. In the Sixth Circuit, the absence of a change in policy following the consumers’ initial purchase in the alleged foremarket, which locked consumers into the alleged aftermarket (*i.e.*, the concept of lock-in), was fatal. *See PSI Repair Servs., Inc.*, 104 F.3d at 820. For consumers, iOS has always been a closed system, and the App Store has been a “walled garden” with respect to native apps from its inception; even prior to any time in which Apple was alleged to have become a monopolist. Indeed, it is undisputed by the parties that a key distinguishing feature of the iOS platform is its closed platform model, as compared to the open Android platform maintained by its main competitor Google. At the very least, previous consumers of iOS devices would have been familiar with the iOS platform and the App Store model when they repurchased a device prior to 2011.

Epic Games’ reliance on a 2007 statement from Steve Jobs when he announced the 70-30 split that Apple did not intend to make a profit, much less an unpublicized, internal 2011 comment by Phil Schiller regarding a reduction of the 70-30 after a billion dollars in profit, do not change the analysis. As discussed above, these statements do not create a policy shift sufficient to show lock-in. At best, these statements reflect Apple’s initial expectation that the

⁵⁸³ Epic Games did not define the foremarket as the market for sale of mobile cellular phones or mobile devices. That said, even Dr. Evans acknowledges, consumers do not buy smartphone operating systems separately from smartphones. Trial Tr. (Evans) 1621:19–23; Ex. Expert 7 (Lafontaine) ¶¶ 61–63. There is no price charged to consumers for either the iOS or the Android operating systems. *See supra* Facts § II.A.; Trial Tr. (Lafontaine) 2022:11–2023:4; Ex. Expert 1 (Evans) ¶ 139.

App Store was not projected to be profitable for Apple.⁵⁸⁴ Apple's miscalculation, while hugely profitable, does not evidence consumers lock-in with iOS devices. While Apple's calculated risk returned incredible profits, the reality is that Apple has maintained the same general rules with both consumers and developers since the inception of the iOS devices. Epic Games' arguments that Apple has otherwise repeatedly increased prices does not persuade, where Apple's rate has always been 30%.⁵⁸⁵

Second, Epic Games failed to prove lock-in, even absent a policy shift. Given the weak showing, plaintiff either found itself with an unachievable task or insufficient time to address the issue. In short, there is no evidence in the record demonstrating that consumers *are unaware* that the App Store is the sole means of digital distribution on the iOS platform. Specifically, there is no evidence in the form of consumer survey data demonstrating the extent of consumers knowledge when purchasing of an iOS device, much less that they are unaware they are purchasing *into* a closed ecosystem that is tightly controlled by Apple.

Instead of addressing the issue head-on, Epic Games pivots to argue that the market imperfections prevent consumers from discovering the true costs of downloading apps. In other words, even those consumers who know the facts about Apple's practices in the iOS app distribution market typically do not or cannot effectively take those facts into account when choosing a smartphone and operating system because the cost of distributing apps is low compared to the overall cost of a smartphone and because it is difficult to calculate and compare the lifecycle costs of smartphones between smartphone operating systems.⁵⁸⁶

These arguments are not supported by the record. Epic Games fails to quantify the actual cost to consumers on downloading and purchasing apps and in-app purchases. Indeed, if anything, the record reflects that cross-platform functionality and apps have only proliferated since the early 2010s, where middleware like streaming services and cross-platform games have only made switching platforms and devices easier and more convenient. That is, the market is responding and evolving.

⁵⁸⁴ Moreover, this 2007 statement is better categorized as a statement concerning price—not about any restriction on iOS app distribution or payment processing that Epic Games mainly challenges. In other words, this statement taken in the best possible light for Epic Games is a misrepresentation as to price—not as to any of the then and still present restrictions on distribution or payment processing.

⁵⁸⁵ Indeed, Epic Games' citation to Apple's 2009 action requiring IAP to process payment for in-app digital content does not persuade where no Epic Games expert witness opines that Apple had monopoly power prior to 2010 or 2011. Even considering this action, along with Apple's 2011 and 2016 rules regarding antisteering, subscriptions, and search ads, do not demonstrate any increase in the rate for consumers *or* developers. Indeed, most of these actions enabled increased functionality for consumers and developers, permitting new business models, and relied on increasing innovation on both the iOS device and the App Store.

⁵⁸⁶ Trial Tr. (Evans) 1508:15–1509:25.

Epic Games’ sole focus on iOS devices simply ignores the market reality that is available to consumers. The Court’s definition of the product as “digital mobile game transactions” takes into account that the App Store competes against other platforms for both consumers and developers. Indeed, as discussed in the findings of facts, several recent entrants into the mobile gaming submarket, from Nintendo, Microsoft, and Nvidia, show that this submarket is presently evolving and is dynamic. Moreover, the continued rise and popularity of cross-platform games like *Fortnite* and *Minecraft* offered on a variety of platforms, even beyond mobile gaming devices, are making switching between platforms seamless because a consumer can carry over rewards and progress between the diverse platforms. As a result, neither consumers nor developers are “locked-in” to the App Store for digital mobile game transactions—they can and do pursue game transactions on a variety of other mobile platforms and increasingly other game platforms.⁵⁸⁷ Although the state of the wider gaming market is not at a level where the entirety of these gaming platforms can truly be characterized as competing for purposes of antitrust law (e.g., substitutes), the continued rise of cross-platform games, technologies, and innovative ways in which to reach consumers only demonstrate that these differing platforms are converging and ever intertwining.⁵⁸⁸

In sum, with seasoned antitrust counsel at the helm, Epic Games created a market definition which theoretically made a strong showing within the *Newcal* and *Eastman Kodak* framework. For the reasons explained above, the market definition was fundamentally flawed, and in any event, does not satisfy all four of the *Newcal* factors. With respect to the Court’s ultimate finding that the relevant market is mobile gaming transactions, the Court further finds

⁵⁸⁷ On some metrics, Apple is in fact more open than some competitors in the wider digital gaming market. For instance, the record reflects that certain competitors institute restrictions on cross-platform play and cross-platform wallet. Moreover, some platform owners require revenue sharing when game players disproportionately spend on a platform other than their own. Further still, some agreements require that certain goods be charged the same as the cheapest available on other platforms.

⁵⁸⁸ The Court has further never been satisfied by Epic Games’ explanation as to how its aftermarket theory as to Apple would not also apply to other platform holders with similar walled garden models in the wider gaming market, including Nintendo, Microsoft, and Sony. *See Epic Games, Inc. v. Apple Inc.*, 493 F. Supp. 3d 817, 838–39 (N.D. Cal. 2020). The same three *Newcal* factors that readily apply to Apple’s iOS devices would also facially apply to Nintendo’s, Microsoft’s, and Sony’s consoles and their digital stores. Epic Games’ distinction as to general purpose devices (e.g., iOS devices) versus special purpose devices (e.g., game consoles) has no basis in current antitrust law. Presumably, the factors would be applied in the same fashion.

Instead, and as discussed above, consumers if anything appear to purchase a game console in the same manner they purchase an iOS device: understanding that they must purchase into an ecosystem and are limited in the later transactions for apps and games. Despite the foregoing, Epic Games does not claim that every game console manufacturer has unlawfully created and maintained a monopoly, and in fact, appears content to offer *Fortnite* and other Epic Games on those platforms without complaint. Trial Tr. (Schmalensee) 1904:15–1905:4.

that, at a minimum, the fourth *Newcal* factor would similarly not be adequately satisfied on the record before the Court.

2. Geographic Market

“The criteria to be used in determining the appropriate geographic market are essentially similar to those used to determine the relevant product market.” *Brown Shoe*, 370 U.S. at 336 (citations omitted). “A geographic market is an area of effective competition where buyers can turn for alternate sources of supply.” *Morgan, Strand, Wheeler & Biggs v. Radiology, Ltd.*, 924 F.2d 1484, 1490 (9th Cir. 1991) (simplified).

“The relevant geographic market for goods sold nationwide is often the entire United States[.]” *Heerwagen v. Clear Channel Commc’ns*, 435 F.3d 219, 228 (2d Cir. 2006). As compared to others, in antitrust cases, courts regularly recognize global markets. *See, e.g., United States v. Microsoft Corp.*, 253 F.3d 34, 52 (D.C. Cir. 2001) (upholding relevant geographic market encompassing “the licensing of all Intel-compatible PC operating systems worldwide”); *United States v. Eastman Kodak Co.*, 63 F.3d 95, 108 (2d Cir. 1995) (upholding worldwide geographic market for film). The United States antitrust laws’ concern with anticompetitive conduct, includes harm that such American businesses suffer relating to their transactions with foreign consumers. *See* 15 U.S.C. § 6a (Sherman Act generally applies to conduct affecting “export trade”). Importantly here, the question focuses on the area of effective competition, not the reach of United States antitrust laws which is addressed elsewhere.

Having found the relevant product market to be that of mobile gaming transactions, the Court finds the area of effective competition in the geographic market to be global, with the exception of China. As discussed in the findings of facts, *see supra* Facts § III, Apple’s engagement in that market does not change based on national borders. Developers globally access the platform based on the same set of rules and agreements. Even here, Epic Games’ related entity was bound by the exact same set of rules and agreements. Given the current record, the Court discerns no meaningful difference for digital mobile gaming transactions domestically than globally.

II. SECTIONS 1 AND 2 OF THE SHERMAN ACT (COUNTS 1, 3, 4, 5)

A. General Framework

As *Qualcomm* instructs, “[t]he similarity of the burden-shifting tests under §§ 1 and 2 means that courts often review claims under each section simultaneously.” *Qualcomm*, 969 F.3d at 991. Indeed, “[i]f, in reviewing an alleged Sherman Act violation, a court finds that the conduct in question is not anticompetitive under § 1, the court need not separately analyze the conduct under § 2.” *Id.* (citing *Williams v. I.B. Fischer Nevada*, 999 F.2d 445, 448 (9th Cir. 1993)). That result is logical as “proving an antitrust violation under § 2 of the Sherman Act is more exacting than proving a § 1 violation” *Id.* at 992 (citing *Microsoft Corp.*, 253 F.3d at 79).

Among the differences in the analysis is the type of evidence used to prove a monopoly. “[A]lthough the tests are largely similar, a plaintiff may not use indirect evidence to prove unlawful monopoly maintenance via anticompetitive conduct under § 2.” *Id.* (citing *Broadcom*

Corp. v. Qualcomm Inc., 501 F.3d 297, 307–08 (3d Cir. 2007) (distinguishing between proving the existence of monopoly power through indirect evidence and proving anticompetitive conduct itself, the second element of a Section 2 claim)).

Here, in light of *Qualcomm*, the Court reviews Sections 1 and 2 Sherman Act claims together. Underpinning both Sections 1 and 2 claims is the level of market power, and possibly monopoly power, that Apple exercises in the determined product and geographic market. The Court therefore initially assesses Apple’s market and monopoly power in the relevant product and geographic market before addressing Epic Games’ claims under Sections 1 and 2 of the Sherman Act.

B. Assessing Apple’s Market Power in the Relevant Product and Geographic Market

1. Legal Framework

Market power and monopoly power are related but distinct concepts. As the Supreme Court has stated: “market power is the ability to raise prices above those that would be charged in a competitive market.” *NCAA v. Bd. of Regents of the Univ. of Oklahoma*, 468 U.S. 85, 109 n.38 (1984).⁵⁸⁹ Monopoly power is “the power to control prices or exclude competition.” *Grinnell Corp.*, 384 U.S. at 571.

The difference between the two is a matter of degree. “Monopoly power under § 2 requires, of course, something greater than market power under § 1.” *Eastman Kodak*, 504 U.S. at 481; *see also Image Tech. Servs. II*, 125 F.3d at 1206 (same). Courts have described the distinction as “substantial” market power or an “extreme degree” of market power. *See, e.g., Bacchus Indus., Inc. v. Arvin Indus., Inc.*, 939 F.2d 887, 894 (10th Cir. 1991) (defining monopoly power as “substantial” market power); *Deauville Corp. v. Federated Dep’t Stores, Inc.*, 756 F.2d 1183, 1192 n.6 (5th Cir. 1985) (defining monopoly power as an “extreme degree of market power”); *Safeway Inc. v. Abbott Lab’ys*, 761 F. Supp. 2d 874, 886 n.2 (N.D. Cal. 2011) (defining monopoly power as a substantial degree of market power).⁵⁹⁰ Courts have also required that the monopoly power be beyond fleeting or ephemeral which the Court understands to be durable and sustaining. *See United States v. Syufy Enters.*, 903 F.2d 659, 665–66 (9th Cir. 1990) (“In evaluating monopoly power, it is not market share that counts, but the ability to

⁵⁸⁹ *See also Jefferson Par. Hosp. Dist. No. 2 v. Hyde*, 466 U.S. 2, 27 n.46 (1984) (“As an economic matter, market power exists whenever prices can be raised above levels that would be charged in a competitive market.”), *abrogated on other grounds by Illinois Tool Works Inc. v. Indep. Ink, Inc.*, 547 U.S. 28, 31 (2006); *cf. Dennis W. Carlton & Jeffrey M. Perloff, Modern Industrial Organization* 642 (4th ed. 2005) (noting that a firm has market power “if it is profitably able to charge a price above that which would prevail under competition”); William M. Landes & Richard A. Posner, *Market Power in Antitrust Cases*, 94 Harv. L. Rev. 937, 939 (1981) (“A simple economic meaning of the term ‘market power’ is the ability to set price above marginal cost.”).

⁵⁹⁰ *See also Areeda & Hovenkamp* § 801 (stating that “the Sherman Act § 2 notion of monopoly power . . . is conventionally understood to mean ‘substantial’ market power”).

maintain market share.” (emphasis in original)); *Colo. Interstate Gas Co. v. Nat. Gas Pipeline Co. of Am.*, 885 F.2d 683, 695–96 (10th Cir. 1989) (finding a firm lacked monopoly power because its “ability to charge monopoly prices will necessarily be temporary”).⁵⁹¹

“[M]arket share is just the starting point for assessing market power.” *Hunt-Wesson Foods, Inc. v. Ragu Foods, Inc.*, 627 F.2d 919, 925 (9th Cir. 1980). It “should not be equated with monopoly power” but instead is “evidence from which the existence of monopoly power may be inferred . . .” *Hunt-Wesson*, 627 F.2d at 924. Indeed, as the Ninth Circuit has cautioned, “[b]lind reliance upon market share, divorced from commercial reality, could give a misleading picture of a firm’s actual ability to control prices or exclude competition.” *Id.* In other words, “market share, while being perhaps the most important factor, does not alone determine the presence or absence of monopoly power.” *Pac. Coast Agr. Export Ass’n v. Sunkist Growers, Inc.*, 526 F.2d 1196, 1204 (9th Cir. 1975) (affirming jury finding where defendant controlled anywhere from 45-70% of the market and competitors were fragmented with less than 12 to 18% of the market).

The threshold of market share for finding a *prima facie* case of monopoly power is generally no less than 65% market share. *See Image Tech. Servs. II*, 125 F.3d at 1206 (“Courts generally require a 65% market share to establish a *prima facie* case of market power.”); *Hunt-Wesson*, 627 F.2d at 924–25 (“market shares on the order of 60 percent to 70 percent have supported findings of monopoly power”).⁵⁹² A more conservative threshold would require a market share of 70% or higher for monopoly power. *See Kolon Indus. Inc. v. E.I. DuPont de Nemours & Co.*, 748 F.3d 160, 174 (4th Cir. 2014) (“Although there is no fixed percentage market share that conclusively resolves whether monopoly power exists, the Supreme Court has never found a party with less than 75% market share to have monopoly power. And we have observed that when monopolization has been found the defendant controlled seventy to one hundred percent of the relevant market.” (citations omitted)); *Syufy Enters. v. Am. Multicinema, Inc.*, 793 F.2d 990, 995 (9th Cir. 1986) (“[A]s far as we know, neither the Supreme Court nor any other court has ever decided whether a market share as low as 60-69% is sufficient, standing alone, to sustain such a finding.”). Relatedly, “numerous cases hold that a market share of less than 50 percent is presumptively insufficient to establish” the requisite level of market power under a Section 2 claim. *Rebel Oil Co., Inc. v. Atl. Richfield Co.*, 51 F.3d 1421, 1438 (9th Cir. 1995).⁵⁹³

⁵⁹¹ *See also* *Areeda & Hovenkamp* § 801d; *Oahu Gas Serv., Inc. v. Pac. Res., Inc.*, 838 F.2d 360, 366 (9th Cir. 1988) (“A firm with a high market share may be able to exert market power in the *short run*, but [s]ubstantial market power can persist only if there are significant and continuing barriers to entry.” (internal quotation marks omitted) (emphasis supplied)).

⁵⁹² *See also* *Grinnell Corp.*, 384 U.S. at 571 (noting that the Supreme Court previously found “over two-thirds of the entire domestic field of cigarettes, and over 80% of the field of comparable cigarettes” constituted “a substantial monopoly” before finding monopoly power where defendant had an 87% market share).

⁵⁹³ *See also* *Twin City Sportservice, Inc. v. Charles O. Finley & Co.*, 512 F.2d 1264, 1274 (9th Cir. 1975) (“We do, however, wish to remind the trial court when considering this case

By contrast, Section 1 claims can be satisfied with less market power. For instance, the Ninth Circuit affirmed a finding of a Section 1 violation where the market share was as low as 24% but has also found market share above 30% insufficient. *See, e.g., Twin City Sportservice, Inc. v. Charles O. Finley & Co.*, 512 F.2d 1264 (9th Cir. 1982). *But see also Jefferson Parish*, 466 U.S. at 26 & n.43 (30 percent market share insufficient); *Pilch v. French Hosp.*, No. CV 98-9470 CAS(CWX), 2000 WL 33223382, at *7 (C.D. Cal. Apr. 28, 2000) (33.2 percent market share insufficient).

Here, the Court considers other market factors in the form of direct and indirect evidence. First, direct evidence is evidence “of the injurious exercise of market power” such as “evidence of restricted output and supracompetitive prices.” *Rebel Oil Co.*, 51 F.3d at 1434. This kind of evidence is “direct proof of the injury to competition which a competitor with market power may inflict, and thus, [direct proof] of the actual exercise of market power.” *Id.* (citing *FTC v. Indiana Fed’n of Dentists*, 476 U.S. 447, 460–61 (1986)).

The second and “more common type of proof is circumstantial evidence pertaining to the structure of the market.” *Id.* To demonstrate market power indirectly, a plaintiff must: “(1) define the relevant market, (2) show that the defendant owns a dominant share of that market, and (3) show that there are significant barriers to entry and show that existing competitors lack the capacity to increase their output in the short run.” *Id.*⁵⁹⁴

Because “[a] mere showing of substantial or even dominant market share alone cannot establish market power sufficient to carry out a predatory scheme,” a plaintiff “must show that new rivals are barred from entering the market and show that existing competitors lack the capacity to expand their output to challenge the predator’s high price.” *Rebel Oil Co.*, 51 F.3d at 1438–39, n.10 (“telltale factors” include “market share, entry barriers and the capacity of existing competitors to expand output”). Entry barriers are market characteristics “that prevent new rivals from timely responding to an increase in price above the competitive level.” *FTC v. Qualcomm Inc.*, 411 F. Supp. 3d 658, 684 (N.D. Cal. 2019) (quotation marks omitted), *rev’d on other grounds*, 969 F.3d 974 (9th Cir. 2020). They include “additional long-run costs that were not incurred by incumbent firms but must be incurred by new entrants,” or “factors in the market

on remand of Judge Learned Hand’s famous dictum that while 90% of the market ‘is enough to constitute a monopoly; it is doubtful whether sixty or sixty-four per cent would be enough; and certainly thirty-three per cent is not.’ It also should be recalled that on several occasions courts have considered a 50% share of the market as inadequate to establish a proscribed monopoly.” (quoting *United States v. Aluminum Co. of Am.*, 148 F.2d 416, 424 (2d Cir. 1945)).

⁵⁹⁴ *See also Microsoft Corp.*, 253 F.3d at 51 (“Because such direct proof is only rarely available, courts more typically examine market structure in search of circumstantial evidence of monopoly power. Under this structural approach, monopoly power may be inferred from a firm’s possession of a dominant share of a relevant market that is protected by entry barriers.” (citations omitted)); *Oahu Gas*, 838 F.2d at 367 (“A high market share, though it may ordinarily raise an inference of monopoly power . . . will not do so in a market with low entry barriers or other evidence of a defendant’s inability to control prices or exclude competitors.” (internal citation omitted)).

that deter entry while permitting incumbent firms to earn monopoly returns.” *L.A. Land Co. v. Brunswick Corp.*, 6 F.3d 1422, 1427–28 (9th Cir. 1993) (quotation marks omitted).

2. Analysis

As a starting point, the Court has found Apple’s market share in mobile gaming transactions appears to fluctuate anywhere from approximately 52% to 57% over the course of the three years in evidence. *See supra* Facts § II.E. While the prior figures suggest that Apple’s share in mobile gaming is increasing, the more recent year reflects some stability in the market between Apple and its main competitor, Google. That Apple has more than a majority in a mostly duopolistic, and otherwise highly concentrated, market indicates that Apple has considerable market power.

Apple’s market share is below the general ranges of where courts found monopoly power under Section 2. Nonetheless, the Court considers additional direct and indirect evidence to determine whether that market share should be sufficient under Section 2 or, under any event, sufficient under Section 1.

In considering *direct* evidence of monopoly power, Epic Games has failed to demonstrate that there is a necessary restriction in the output of the relevant product—here, mobile game transactions. The record contains substantial evidence that output has increased in mobile gaming transactions. *See supra* Facts §§ IV–V. Even though the Court has concerns about the 30% rate and its appearance of being artificially higher (*i.e.*, supracompetitive) than it would be in a more competitive market, there has not been the corollary impact on output. This could be because of the technological nature of the dispute. *Id.*; *see also supra* Facts § V.A.1.c. Nonetheless, given the manner in which this case was litigated, Epic Games failed to produce evidence that this rate has had any impact on the output of mobile gaming transactions.

“[S]upracompetitive pricing, on its own, is not direct evidence of monopoly power.” *Safeway Inc.*, 761 F. Supp. 2d at 887 (N.D. Cal. 2011) (*citing Forsyth v. Humana, Inc.*, 114 F.3d 1467, 1476 (9th Cir. 1997) (“The plaintiffs submitted evidence that [defendant] routinely charged higher prices than other [competitors] while reaping high profits. With no accompanying showing of restricted output, however, the plaintiffs have failed to present direct evidence of market power [under Section 2].”), *overruled on other grounds by Lacey v. Maricopa County*, 693 F.3d 896 (9th Cir. 2012); *see also Harrison Aire, Inc. v. Aerostar Int’l, Inc.*, 423 F.3d 374, 381 (3d Cir. 2005); *Geneva Pharms. Tech. Corp. v. Barr Lab’ys Inc.*, 386 F.3d 485, 500 (2d Cir. 2004); *Blue Cross & Blue Shield United of Wisconsin v. Marshfield Clinic*, 65 F.3d 1406, 1412 (7th Cir. 1995). Indeed, “[t]o prove monopoly power directly, supracompetitive pricing must be accompanied by restricted output.” *Safeway Inc.*, 761 F. Supp. 2d at 887 (*citing Rebel Oil Co.*, 51 F.3d at 1434). In other words, “[b]oth are required to prove monopoly power directly.” *Id.*⁵⁹⁵ Given the Court has found the record, at best, incomplete, the lack of evidence

⁵⁹⁵ Indeed, as the *Safeway* court notes and explains in a footnote:

Plaintiffs nevertheless continue to argue that evidence of restricted output is not required because raising prices necessarily depresses sales. This is incorrect. Take for example a market in which demand

of decreased output for mobile gaming transactions and mobile game apps is fatal in demonstrating monopoly power using direct evidence.

With respect to indirect evidence, a more mixed result emerges. A share between 52 and 57 percent is not high enough to sustain a *prima facie* case of a monopoly, but is enough to permit the Court to evaluate the state and durability of the market. This evaluation includes whether (i) new rivals are barred from entering the market (*i.e.*, the degree of entry barriers) and (ii) whether existing competitors lack the capacity to expand their output to challenge the predator's high price. In general, entry barriers are "additional long-run costs that were not incurred by incumbent firms but must be incurred by new entrants" or "factors in the market that deter entry while permitting incumbent firms to earn monopoly returns." *L.A. Land Co.*, 6 F.3d at 1427–28. Such barriers include "(1) 'legal license requirements, (2) control of an essential or superior resource, (3) entrenched buyer preferences for established brands; (4) capital market evaluations imposing higher capital costs on new entrants; and, in some situations, (5) economies of scale.'" *Rebel Oil Co.*, 51 F.3d at 1439 (citing *L.A. Land Co.*, 6 F.3d at 1428 n.4).

Here, the evidence is both undeveloped and mixed. Given that mobile gaming was not a proposed product market for either party, neither party has adequately presented evidence of these barriers or competitors' ability to challenge monopolistic actions. The Court nonetheless considers the limited evidence in record.

On the one hand, only a small number of platforms, and their attendant licenses on which to distribute mobile games, exist—namely iOS and Android. Moreover, economies of scale in the form of network effects favor these established digital gaming stores and platforms over new entrants. Finally, new entrants may face information barriers to entry, as users may not know that cheaper game distribution may be available on alternative platforms.⁵⁹⁶ Although these factors do not create "lock-in," they are evidence of some entry barriers for new companies providing mobile game transactions.

On the other hand, there are significant changes in both the wider gaming market *and* the mobile gaming market—both appear to be in flux. Indeed, the evidence reflects that the wider gaming market is both dynamic and evolving. Mobile gaming transactions do not appear to be immune to this dynamism. The introduction of the hybrid platform the Nintendo Switch in 2017 provides some evidence that the barriers of entry are not so high as to deter competitors in

outstrips supply. In such a hypothetical market, a firm could raise prices—up to a certain point—without necessarily causing a commensurate reduction in sales.

Safeway Inc., 761 F. Supp. 2d at 887 n.3.

⁵⁹⁶ See Ex. Expert 4 (Athey) ¶¶ 36–37, 45–46; Ex. Expert 1 (Evans) ¶ 118. Although, the Court notes that some platform owners require price parity among other platforms, such that prices are universal amongst each platform. See *supra* Facts §§ II.D.3–4.

related markets from entering the mobile gaming transactions market.⁵⁹⁷ Moreover, Microsoft and Nvidia’s efforts into mobile game streaming are further evidence that these entry barriers are not so substantial to prevent new market entrants.⁵⁹⁸ Indeed, these competitors are moving into the same lucrative mobile gaming submarket without facing substantial market barriers to entry. In short, these competitors appear to be leveraging either existing intellectual property in the form of hardware and gaming content as well as existing established networks, including its own consumer and developer bases, to break into this market space. Given this recent movement by competitors, it is hard to characterize the entry barriers as oppressive or high on this record.

The evidence is further mixed on whether existing competitors, here Google, could increase output in the short run in order to erode Apple’s market share. *See Pacific Coast*, 526 F.2d at 1204 (affirming jury’s finding of monopoly power where defendant had a market share of 45 to 70% in the relevant years, and the remaining competitors “were relatively small, with no single competitor controlling over 18% [or] 12%” of the market). Beyond similar market share in this market, neither party explored mobile gaming and the record is inconclusive on Google’s *actual* capabilities in disciplining and competing with Apple in this sphere.

In sum, given the totality of the record, and its underdeveloped state, while the Court can conclude that Apple exercises market power in the mobile gaming market, the Court cannot conclude that Apple’s market power reaches the status of monopoly power in the mobile gaming market. That said, the evidence does suggest that Apple is near the precipice of substantial market power, or monopoly power, with its considerable market share. Apple is only saved by the fact that its share is not higher, that competitors from related submarkets are making inroads into the mobile gaming submarket, and, perhaps, because plaintiff did not focus on this topic.

C. Section 1 of the Sherman Act: Apple’s Unlawful Restraint of the iOS App Distribution Market (Count 3) and Unlawful Restraint on the iOS In-App Payment Solutions Market (Count 5)

Epic Games brings two counts under Section 1 of the Sherman Act for unlawful restraint of trade in the iOS app distribution aftermarket (Count 3) and in the iOS in-app payment solutions aftermarket (Count 5). The legal framework is the same for both.

⁵⁹⁷ Although not in the record, the Court is further aware that Valve, a major player in the computer gaming market as the owner of the Steam platform, has also announced its own mobile and portable gaming platform. The Court does not rely on this fact in reaching its conclusions herein, but only mentions it to further support the Court’s ultimate conclusion: that entries into the mobile gaming submarket appear to be possible and achievable from competitors in related gaming submarkets.

⁵⁹⁸ Of course, game streaming is still relatively new and currently does not replicate freemium games, the primary driver of App Store revenue, because, with the exception of Nvidia’s free access tier, such services generally require an up-front subscription payment. *See supra* Facts § II.D.3.d.

1. Legal Framework

Section 1 of the Sherman Act prohibits “[e]very contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among the several States, or with foreign nations.” 15 U.S.C. § 1. Section 1 is understood “to outlaw only unreasonable restraints.” *Amex*, 138 S. Ct. at 2283 (internal quotation marks and emphasis omitted); *State Oil Co. v. Khan*, 522 U.S. 3, 10 (1997); *Standard Oil Co. of N.J. v. United States*, 221 U.S. 1, 59–60 (1911). “To establish liability under § 1, a plaintiff must prove (1) the existence of an agreement, and (2) that the agreement was in unreasonable restraint of trade.” *Aerotec Int’l, Inc. v. Honeywell Int’l, Inc.*, 836 F.3d 1171, 1178 (9th Cir. 2016).

Despite the broad language of the statute, antitrust law has developed to find that “[t]he essence of a Section 1 claim is concerted action.” *E.W. French & Sons v. Gen. Portland*, 885 F.2d 1392, 1397 (9th Cir. 1989). “[E]xpress ‘agreements’” are “direct evidence of ‘concerted activity.’” *Paladin Assocs., Inc. v. Montana Power Co.*, 328 F.3d 1145, 1153 (9th Cir. 2003); see also *Sun Microsystems Inc. v. Hynix Semiconductor Inc.*, 608 F. Supp. 2d 1166, 1192 (N.D. Cal. 2009) (“One way of proving concerted action is by express agreement.”). A plaintiff “need not prove intent to control prices or destroy competition to demonstrate the element of an agreement among two or more entities.” *Paladin Assocs.*, 328 F.3d at 1153–54 (internal quotation marks and alterations omitted). “Unilateral conduct by a single firm, even if it appears to restrain trade unreasonably, is not unlawful under Section 1 of the Sherman Act.” *The Jeanery, Inc. v. James Jeans, Inc.*, 849 F.2d 1148, 1152 (9th Cir. 1988) (internal quotation marks omitted); see also *Monsanto Co. v. Spray-Rite Serv. Corp.*, 465 U.S. 752, 761 (1984) (“Independent action is not proscribed.”). Thus, in evaluating the first element, the Sherman Act distinguishes between concerted conduct and unilateral conduct and “treat[s] concerted behavior more strictly than unilateral behavior.” *Copperweld Corp. v. Indep. Tube Corp.*, 467 U.S. 752, 768 (1984).

With respect to the second element, some restraints are *per se* unreasonable. Where they are not, they are “judged under the ‘rule of reason.’” *Amex*, 138 S. Ct. at 2284. “The rule of reason requires courts to conduct a fact-specific assessment of ‘market power and market structure to assess the restraint’s actual effect’ on competition.” *Id.* (quoting *Copperweld Corp.*, 467 U.S. at 768) (alterations omitted). “Under this rule, the factfinder weighs all of the circumstances of a case in deciding whether a restrictive practice should be prohibited as imposing an unreasonable restraint on competition.” *Leegin Creative Leather Prods., Inc. v. PSKS, Inc.*, 551 U.S. 877, 885–86 (2007) (internal quotation marks and citation omitted). “Appropriate factors to consider include specific information about the relevant business and the restraint’s history, nature, and effect.” *Id.* (internal quotation marks and citation omitted). “Whether the businesses involved have market power is a further, significant consideration.” *Id.* (citation omitted). “In its design and function the rule distinguishes between restraints with anticompetitive effect that are harmful to the consumer and restraints stimulating competition that are in the consumer’s best interest.” *Id.*

As the Supreme Court recently explained:

To determine whether a restraint violates the rule of reason, . . . a three-step, burden shifting framework applies. Under this

framework, the plaintiff has the initial burden to prove that the challenged restraint has a substantial anticompetitive effect that harms consumers in the relevant market. If the plaintiff carries its burden, then the burden shifts to the defendant to show a procompetitive rationale for the restraint. If the defendant makes this showing, then the burden shifts back to the plaintiff to demonstrate that the procompetitive efficiencies could be reasonably achieved through less anticompetitive means.

Amex, 138 S. Ct. at 2284 (citations omitted); *see also Qualcomm*, 969 F.3d at 989. The three steps “do not represent a rote checklist” and are not “an inflexible substitute for careful analysis.” *NCAA v. Alston* (“*NCAA*”), 141 S. Ct. 2141, 2160 (2021). Rather, their purpose is “to furnish ‘an enquiry meet for the case, looking to the circumstances, details, and logic of a restraint.’” *Id.* (quoting *Cal. Dental Ass’n v. FTC*, 526 U.S. 756, 781 (1999)).

2. Count 3: iOS App Distribution Market Analysis

a. Existence of an Agreement

Count 3 alleges that Apple “require[s] iOS developers distribute their apps through the App Store.” Compl. ¶ 210. Starting with the first element, Epic Games relies on the DPLA to demonstrate an agreement.⁵⁹⁹ As noted, express agreements provide “direct evidence” of concerted activity. *Paladin Assocs.*, 328 F.3d at 1153. Apple argues, however, that the DPLA does not qualify because Apple unilaterally imposes it on developers. *See Costco Wholesale Corp. v. Maleng*, 522 F.3d 874, 898 (9th Cir. 2008) (no “meeting of the minds” from unilateral rules).⁶⁰⁰

As explained above, the Sherman Act distinguishes between unilateral and concerted activity. *Jeanery*, 849 F.3d at 152. “Concerted activity subject to § 1 is judged more sternly than unilateral activity under § 2” because it “deprives the marketplace of the independent centers of decisionmaking that competition assumes and demands.” *Copperweld Corp.*, 467 U.S. at 768–

⁵⁹⁹ In its Section 2 rule of reason analysis, Apple argues that technical design of iOS cannot form the basis of antitrust liability. Apple COL ¶ 249. In response, Epic Games appears to disclaim any challenge to Apple’s code signing restrictions. Epic Games COL ¶ 143. The Court here considers only the DPLA restrictions on distribution.

⁶⁰⁰ In *Costco*, a retailer challenged Washington state’s regulations of alcohol sales under antitrust laws. 522 F.3d at 883. Washington had required distributors to sell alcohol at a uniform price and to post those prices publicly, among other restrictions. *Id.* To evaluate the conduct, the Ninth Circuit distinguished “unilateral” restraints—which were not prohibited by the Sherman Act—from “hybrid” restraints, which involve concerted action and implicate Section 1. *Id.* at 886–87. The court found that the price restrictions were unilateral state conduct, but that the requirement to post and adhere to the prices was “hybrid” because private parties still retained discretion. *Id.* at 894, 899. It then found that the posting requirement violates Section 1. *Id.* at 895. *Costco* shows that even *government command* can create “concerted activity” under Section 1. Apple’s conduct here is far less unilateral.

69. It thus “warrant[s] scrutiny even in the absence of incipient monopoly.” *Id.* Unilateral conduct, by contrast, may simply represent “robust competition.” *Id.* at 767–68; see *Qualcomm*, 969 F.3d at 1005 (“hypercompetitive behavior” is not illegal under antitrust laws). Thus, even unreasonable unilateral restraints are not subject to antitrust scrutiny unless “they pose a danger of monopolization.” *Copperweld Corp.*, 467 U.S. at 768.

Given this distinction, a business may set conditions for dealing unilaterally and refuse to deal with anyone who does not meet those conditions. See *Monsanto*, 465 U.S. at 761. However, where the conduct extends beyond announcing a policy and refusing to deal with non-compliant partners to coercing an agreement, the conduct falls under Section 1. See *id.* at 765; see also *Dimidowich v. Bell & Howell*, 803 F.2d 1473, 1478 (9th Cir. 1986) (recognizing an exception to the “unilateral refusal to deal” rule where a party “imposes restraints on dealers or customers by coercive conduct and they involuntarily adhered to those restraints”).

For example, in *Jeanery*, a jeans manufacturer had set suggested prices for retailers and made clear that those who set prices below the suggested price would be terminated or receive less favorable treatment. 849 F.2d at 1150. A distributor undercut those prices and was promptly terminated. *Id.* at 1151. The Ninth Circuit found no Section 1 violation based on insufficient evidence of an agreement. *Id.* at 1155. Specifically, the Ninth Circuit found no evidence that the manufacturer “coerced” the distributors into adherence or that the distributors “communicated acquiescence to such an agreement.” *Id.* at 1158–60 (reasoning that manufacturer did not do anything more than inform distributors of its policy). Conversely, such evidence was found in *Monsanto*, in which case an agricultural manufacturer threatened to withhold herbicide at a time of short supply and even complained to a distributor’s parent company to force compliance, which the distributor expressly communicated in return. 465 U.S. at 764–65 & nn.9–10.

Here, the DPLA is a unilateral contract which the parties agree that a developer must accept its provisions (including the challenged restrictions) to distribute games on iOS.⁶⁰¹ Thus, under antitrust jurisprudence, element one would not be satisfied. See *Toscano v. Prof. Golfers Ass’n*, 258 F.3d 978 (9th Cir. 2001) (because the sponsors “did not help create anticompetitive rules” but only “agreed to purchase products” under “conditions set by the other party,” they were not liable for concerted conduct under Section 1). *Id.*

That said, the Court addresses here the potential conflicts with the goals of antitrust law given this narrow view. The jurisprudence assumes that unilateral conduct may simply be the result of robust competition. That may not always be the case. Ending the analysis on that basis alone does not allow for those assumptions to be tested, especially where, as here, the Court is faced with a highly concentrated market.

Nor is the jurisprudence particularly consistent with tying claims which are allowed under Section 1. For example, a tying claim involves a seller exploiting “its control over the tying product to force the buyer into the purchase of a tied product.” *Jefferson Parish*, 466 U.S. at 12. The buyer plays no role beyond purchasing the goods under conditions set by the seller.

⁶⁰¹ PX-2619; PX-2621.

Similarly, an exclusive dealing claim involves “agreement between a vendor and a buyer that prevents the buyer from purchasing a given good from any other vendor.” *Aerotec*, 836 F.3d at 1180. Again, the buyer passively accepts conditions set by the vendor. More recently, *Amex* involved an anti-steering provision as a vertical restraint imposed by American Express on merchants. 138 S. Ct. at 2277. The merchants accepted the provision as a condition of dealing with American Express without further involvement. *Id.*⁶⁰²

Thus, while the Court does not find the DPLA provides sufficient evidence of an agreement, it nonetheless continues the analysis to inform the issues relating to anticompetitive and incipient antitrust conduct, especially given the anti-steering provision therein.

b. Reasonableness of the Restraint

For the reasons stated, the Court turns to the second element using the rule of reason test. *Amex*, 138 S. Ct. at 2284; *see also Copperweld Corp.*, 467 U.S. at 768 (explaining that vertical agreements “hold the promise of increasing a firm’s efficiency and enabling it to compete more effectively” and so “are judged under a rule of reason”). As the Court described in *Amex*:

The rule of reason requires courts to conduct a fact-specific assessment of “market power and market structure . . . to assess the [restraint]’s actual effect” on competition. *Copperweld Corp. v. Independence Tube Corp.*, 467 U.S. 752, 768, 104 S. Ct. 2731, 81 L.Ed.2d 628 (1984). The goal is to “distinguish between restraints with anticompetitive effect that are harmful to the consumer and restraints stimulating competition that are in the consumer’s best interest.” *Leegin Creative Leather Products, Inc. v. PSKS, Inc.*, 551 U.S. 877, 886, 127 S. Ct. 2705, 168 L.Ed.2d 623 (2007).

Amex, 138 S. Ct. at 2284. Recognizing that the rule of reason is not a “rote checklist,” *NCAA*, 141 S. Ct. at 2160, the Court examines the app distribution restrictions and considers their anticompetitive effects, procompetitive rationales, and less restrictive alternatives. *Amex*, 138 S. Ct. at 2284. !

i. Anticompetitive Effects

“To demonstrate anticompetitive effects on the two-sided [mobile gaming] market as a whole,” plaintiff must prove that Apple’s app distribution provisions increased the cost of mobile gaming transactions “above a competitive level, reduced the number of [mobile gaming] transactions, or otherwise stifled competition in the [mobile gaming] market.” *See Amex*, 138 S. Ct. at 2287. Evidence of this nature is considered direct evidence. *Id.* at 2284 (simplified).

⁶⁰² *See Image Tech. Servs., Inc. v. Eastman Kodak Co.*, 903 F.2d 612, 619 (9th Cir. 1990) (“*Image Tech Services I*”) (rejecting the argument that party “acted unilaterally in tying parts to service” because otherwise, *Monsanto* “without discussing the courts’ tying decisions, meant to overturn” tying arrangements); *Eastman Kodak*, 504 U.S. at 463 n.8 (conditioning sales is not a “unilateral refusal to deal”).

Indirect evidence is also admissible and would involve “proof of market power plus some evidence that the challenged restraint harms competition.” *Amex*, 138 S. Ct. at 2284.

Here, the Court recognizes significant challenges in assessing the anticompetitive effects of the app distribution restrictions. The market in mobile game transactions has grown dramatically over recent years due to growth in gaming generally, smartphone ownership, and digital transactions as a whole. Apple’s commission rate has remained static throughout even though Google, Apple’s main competitor (and who also charges a 30% commission rate), does not have the same app distribution restrictions. These facts suggest prices are artificially high given Apple’s growing market power and growing demand. Evaluating competitive effects under these circumstances would require isolating the effects of a particular restriction. This is particularly difficult in light of the expansive market growth caused by innovation in the field. It is for these reasons that “novel business practices—*especially* in technology markets—should not be ‘conclusively presumed to be unreasonable and therefore illegal without elaborate inquiry as to the precise harm they have caused or the business excuse for their use.’” *Qualcomm*, 969 F.3d at 990–91 (emphasis in original) (quoting *Microsoft Corp.*, 253 F.3d at 91).

Having carefully considering the evidence, the Court finds that Apple’s app distribution restrictions do have *some* anticompetitive effects. The evidence here shows that, unlike the increased merchant fees in *Amex*, Apple’s maintenance of its commission rate stems from market power, *not competition* in changing markets. As explained above, Apple set its 30% commission rate almost by accident when it first launched the App Store without considering operational costs, benefit to users, or value to developers, that is, both sides of the platform.⁶⁰³ That commission has enabled Apple to collect extraordinary profits as Mr. Barnes credibly shows that the operating margins have exceeded 75% for years. Yet the 30% commission rate has barely budged in over a decade despite developer complaints and regulatory pressure. High commission rates certainly impact developers, and some evidence exists that it impacts consumers when those costs are passed on.⁶⁰⁴

With respect to indirect evidence, the Court discusses these effects in Facts § V.A.1., but summarizes them here. Apple holds considerable market share, 55 percent. Its restrictions harm competition by precluding developers, especially larger ones, from opening competing game stores on iOS and compete for other developers and users on price. Given this but-for-world, increased competition could result in a reduction of Apple’s commissions charged to developers,

⁶⁰³ Thus, the facts here differ from *Amex*. There, American Express raised fees only after a “careful study” of “how much additional value its cardholders offer merchants.” 138 S. Ct. at 2288. It used higher merchant fees “to offer its cardholders a more robust rewards program,” which created loyalty and “encourage[d] the level of spending that makes Amex valuable to merchants.” *Id.* No study or evaluation exists here.

⁶⁰⁴ For this reason, the spectacular growth of free apps on the App Store is not dispositive. While Apple may have decided, over time, to use freemium games to subsidize the rest of the App Store, there is no evidence that the commission is calibrated to the costs or value of providing free games, as the merchant fees in *Amex* were calibrated to providing rewards.

who could then pass on savings to users.⁶⁰⁵ Competing game stores could compete on features, including “search and discoverability,” in-app payment processing, and security. This could improve the innovation in and perhaps quality of “matchmaking” to increase output.⁶⁰⁶ Further, competing game stores could provide specialized stores tailored to particular groups and otherwise innovate to meet user and developer needs.

Accordingly, Epic Games has put proffered both direct and indirect evidence of anticompetitive effects under Section 1.

ii. Procompetitive Justifications

In response, Apple offers three procompetitive justifications: security, intrabrand competition, and protecting intellectual property investment. A procompetitive rationale is a “nonpretextual claim that [defendant’s] conduct is indeed a form of competition on the merits because it involves, for example, greater efficiency or enhanced consumer appeal.” *Qualcomm*, 969 F.3d at 991. It is not enough that “conduct ‘has the effect of reducing consumers’ choices or increasing prices to consumers.’” *Id.* at 990 (quoting *Brantley v. NBC Universal, Inc.*, 675 F.3d 1192, 1202 (9th Cir. 2012)). That is because these effects may arise for procompetitive reasons, such as increased interbrand competition. *See Leegin*, 551 U.S. at 891–93. In a two-sided transaction market, a court must consider procompetitive effects on both sides of the market. *Amex*, 138 S. Ct. at 2287.

Here, the Court finds Apple’s security justification to be a valid and nonpretextual business reason for restricting app distribution. As previously discussed, *see supra* Facts § V.A.2., centralized app distribution enables Apple to conduct app review, which includes both technical and human components. Human review in particular helps protect security by preventing social engineering attacks, the main vector of malware distribution. Human review also helps protect against fraud, privacy intrusion, and objectionable content beyond levels achievable by purely technical measures. By providing these protections, Apple provides a safe and trusted user experience on iOS, which encourages both users and developers to transact freely and is mutually beneficial. As a result, Apple’s conduct “enhance[s] consumer appeal.” *See Qualcomm*, 969 F.3d at 991.

As a corollary of the security justification, the app distribution restrictions promote interbrand competition. The Supreme Court has recognized that limiting intrabrand competition can promote interbrand competition. *Leegin*, 551 U.S. at 890. For example, restricting price

⁶⁰⁵ The record is bare as to who would ultimately benefit from a reduction in commissions. With the limited examples in the record, some developers, like Down Dog, pass on the entirety of the reduction in the commission to consumers, whereas Epic Games split the 30% commission by retaining 12% and remitting 18% to consumers. Thus, it is unclear the extent or degree to which developers would pass on any savings to consumers.

⁶⁰⁶ Under *Amex*, services for each of the two sides of the platform are both “inputs” to the single product, which is transactions. 138 S. Ct. at 2286 n.8. Although Apple does not directly restrict game transaction output, it limits the supply of these inputs on iOS, which reduces quality and may reduce output.

competition among retailers who sell a particular product can help the manufacturer of that product compete against other manufacturers. *Id.* at 890–91. It is this interbrand competition that “the antitrust laws are designed primarily to protect.” *Id.* at 895. Here, centralized app distribution and the “walled garden” approach differentiates Apple from Google. That distinction ultimately increases consumer choice by allowing users who value open distribution to purchase Android devices, while those who value security and the protection of a “walled garden” to purchase iOS devices. This, too, is a legitimate procompetitive justification.

Epic Games does not persuasively rebut the security justification nor shows it to be pretextual. Instead, it focuses on the lack of app distribution restrictions (besides code signing) on Mac computers. *See supra* Facts §§ V.A.1.a, V.A.2.a.iv. However, Apple submits some evidence that Mac computers have more malware than iOS and, in any case, provides a compelling explanation for app review’s increased effectiveness against certain types of attacks. Epic Games also questions the effectiveness of app review in practice. *See supra* Facts § V.A. That hardly provides a reason against app review. Epic Games’ security expert agrees that “mayhem” would result if unfettered app distribution were allowed.⁶⁰⁷ Thus, plaintiff’s proffer is really one of the “effectiveness” of Apple’s security procedures, not the need for them. Whether the precise restrictions Apple has selected could be replicated through less restrictive means is more properly addressed in the next section. Given the trial record, the Court finds that Apple’s security rationale is a valid business justification for the app distribution restrictions.⁶⁰⁸

As for the intellectual property justification, the specific commission rate is pretextual, as the Court previously found. As discussed in Facts § V.A.2.b, there is no evidence that Apple set or maintains its specific commission rate with any consideration of the value or cost of intellectual property in mind.⁶⁰⁹ Indeed, the Supreme Court recently rejected a justification without “any direct connection” to the challenged restraint in *NCAA*. 141 S. Ct. at 2162. There, a sport association argued that restrictions on student athlete compensation were necessary to preserve amateurism and related consumer demand. *Id.* at 2152. The Court rejected this justification based on the district court’s findings that the association set those rules without any reference to considerations of consumer demand. *Id.* at 2162–63 (quoting *In re NCAA Athletic Grant-in-Aid Antitrust Litig.*, 375 F. Supp. 3d 1058, 1070, 1075, 1100 (N.D. Cal. 2019)).

Eastman Kodak is further instructive. There, the photocopier maker argued that companies providing repair services for its machines were “exploiting the investment Kodak has made in product development, manufacturing and equipment sales.” *Eastman Kodak*, 504 U.S.

⁶⁰⁷ Trial Tr. (Mickens) 2709:23–2710:2.

⁶⁰⁸ Relatedly, Apple has a legitimate business justification in maintaining and improving the quality of its services, here, privacy and security. *See Cal. Computs. Prods., Inc. v. Int’l Bus. Machs. Corp.*, 613 F.2d 727, 744 (9th Cir. 1979) (“IBM, assuming it was a monopolist, had the right to redesign its products to make them more attractive to buyers whether by reason of lower manufacturing cost and price or improved performance.”).

⁶⁰⁹ *See, e.g.*, PX-0880.021; Ex. Depo. 8 (Cue) 137:23–138:14, 140:10–141:7; Trial Tr. (Malackowski) 3692:18–21, 3693:13–17.

at 485. The Supreme Court declined to accept this argument and find in Kodak's favor as a matter of law. *Id.* at 486. Ultimately, on remand, the Ninth Circuit affirmed a jury finding of pretext. The evidence showed that "patents 'did not cross [Kodak's] mind at the time Kodak began its parts policy'" and that Kodak did not distinguish patented and unpatented parts in its policy. *Image Tech. Servs. II*, 125 F.3d at 1219–20.

Like the defendants in those cases, Apple did not consider intellectual property in setting its specific commission rate, nor does it list any specific intellectual property in the DPLA. Thus, the justification with respect to the 30% commission rate is pretextual.

That said, while the Court has found the *rate itself* pretextual, the Court cannot conclude that Apple's protection of its intellectual property is pretextual. Courts have found similar justifications based on the protection of intellectual property rights valid, albeit rebuttable, procompetitive justifications. *See, e.g., Tech. Res. Servs., Inc. v. Dornier Med. Sys., Inc.*, 134 F.3d 1458, 1467 (11th Cir. 1998) (jury could have credited defendant's "need to protect its trade secrets and proprietary information"). Indeed, as the Court has found, Apple is entitled to license its intellectual property for a fee, and to guard its intellectual property from uncompensated use by others. The restrictions on app distribution on the iOS platform accomplishes that aim, whereas Epic Games' proposed alternatives (discussed in more length below) would weaken it. In short, Epic Games has failed to show that Apple's proffered intellectual property justification is pretextual as it relates to the restrictions on app distribution.

Accordingly, Apple has shown procompetitive justifications based on security and the corollary interbrand competition, as well as generally with respect to intellectual property rights.

iii. Less Restrictive Alternatives

Turning to the last step, the parties dispute whether these procompetitive justifications could be achieved through less restrictive means. Generally, "antitrust law does not require businesses to use anything like the least restrictive means of achieving legitimate business purposes." *NCAA*, 141 S. Ct. at 2161. "To the contrary, courts should not second-guess degrees of reasonable necessity so that the lawfulness of conduct turns upon judgments of degrees of efficiency." *Id.* (simplified).⁶¹⁰

Thus, under the third step, an alternative must be "a significantly (not marginally) less restrictive means for achieving the same procompetitive benefits." *Id.* at 2164. It must be

⁶¹⁰ The Court notes slightly differing language at the third step between Section 1 ("plaintiff [must] demonstrate that the procompetitive efficiencies could be reasonably achieved through less anticompetitive means") and Section 2 ("the plaintiff must demonstrate that the anticompetitive harm of the conduct outweighs the procompetitive benefit"). *See Qualcomm*, 969 F.3d at 991. Although the Ninth Circuit has recently stated that the rule of reason analysis under both sections is "essentially the same," *id.*, prior case law has explicitly recognized that "there is no least restrictive alternative requirement in the context of a Section 2 claim." *Image Tech. Servs. I*, 903 F.2d at 620; *accord Apple iPod iTunes Antitrust Litig.*, No. 05-CV-0037-YGR, 2014 WL 12719194, at *1 (N.D. Cal. Nov. 25, 2014); *Allied Orthopedic Appliances, Inc. v. Tyco Health Care Grp. L.P.*, Nos. 05-CV-6419-MRP-AJW, 2008 WL 7346921, at *16 (C.D.

“virtually as effective in serving the procompetitive purposes” as current rules “without significantly increased cost.” *In re NCAA Athletic Grant-in-Aid Cap Antitrust Litig.*, 958 F.3d 1239, 1260 (9th Cir. 2020) (simplified), *aff’d* 141 S. Ct. at 2161. Where a restraint is “*patently and inexplicably* stricter than is necessary to accomplish” the proffered procompetitive objective, “an antitrust court can and should invalidate it and order it replaced with a viable [less restrictive alternative].” *Id.* (quoting *O’Bannon v. NCAA*, 802 F.3d 1049, 1075 (9th Cir. 2015) (emphasis in original)).

Here, Epic Games argues that the app distribution restrictions can be replaced with the enterprise model or the notarization model. As discussed above, *see supra* Facts § V.A.2.a.iv., Apple already implements both of these models on iOS and Mac, respectively. The enterprise model enables Apple to certify organizations, such as companies, to distribute apps to their own employees. This model could be extended to certify app stores. The notarization model allows Apple to sign apps to verify security while allowing them to be distributed as the developer wishes. Epic Games argues that these models could be implemented on iOS with minimal technical difficulty.

However, missing from both the enterprise and notarization models is human app review which provides most of the protection against privacy violations, human fraud, and social engineering. These proposed alternatives would require Apple to either add human review to the notarization model or leave app review to third-party app stores. Apple executives suggested that the first option would not scale well.⁶¹¹ Under the second option, Apple could in theory set minimum guidelines for app stores to provide a “floor” for privacy, security, and quality. However, security could increase or decrease depending on the quality and diligence of the store. Evidence shows that at least on Android, the experiment shows less security.

In evaluating remedies, no court should “impose a duty that it cannot explain or adequately and reasonably supervise.” *NCAA*, 141 S. Ct. at 2163 (quoting *Verizon*, 540 U.S. at 883). Here, Epic Games has provided requests for its remedy which principally appear to eliminate app review.⁶¹² The requests also leave unclear whether Apple can collect licensing

Cal. July 9, 2008), *aff’d* 592 F.3d 991 (9th Cir. 2010). This is, in part, because the Sherman Act “does not give judges *carte blanche* to insist that a monopolist alter its way of doing business whenever some other approach might yield greater competition.” *See Verizon Commc’ns Inc. v. Law Offices of Curtis V. Trinko, LLP*, 540 U.S. 398, 415–16 (2004). Regardless, the Court notes this distinction as a potential difference between the two analyses especially where, as recognized, proving a violation of Section 2 is more exacting than proving a violation of Section 1. To the extent appellate courts perceive a practical distinction, clarity is welcomed.

⁶¹¹ Trial Tr. (Federighi) 3502:22–3503:15. Professor Mickens even suggested the courts should micro-manage policy decisions.

⁶¹² *See, e.g.*, Dkt. No. 276-1 at 4 (requesting an injunction prohibiting Apple from enforcing its guidelines to “impede” or “disadvantage” app distribution outside of the App store). Although this request purports not to “prohibit Apple from taking steps to prevent the distribution of malware,” it is not clear what constitutes “malware” and whether that distinction includes “broad” security (privacy, fraud, offline safety, etc.) or is limited to Dr. Mickens’

royalties and, if so, how it would do so. At closing argument, Epic Games’ counsel suggested that “Apple can charge” for its license, so long as it does not discriminate among developers.⁶¹³ However, it has sought to require Apple to give competing app stores access to the same “iOS functionality that the App Store has access to,” which is more than the DPLA currently licenses.⁶¹⁴ Thus, the Court need not consider these possibilities because Epic Games has not sufficiently developed them.

In short, Epic Games has not met its burden to show that its proposed alternatives are “virtually as effective” as the current distribution model and can be implemented “without significantly increased cost.” *In re NCAA Athletic Grant-in-Aid Cap Antitrust Litig.*, 958 F.3d at 1260 (quoting *O’Bannon*, 802 F.3d at 1074). Nor has it shown that the restraints are “patently and inexplicably stricter than is necessary.” *Id.* (quoting *O’Bannon*, 802 F.3d at 1074). “[A]ntitrust courts must give wide berth to business judgments before finding liability.” *NCAA*, 141 S. Ct. at 2163. Here, Apple’s business choice of ensuring security and protecting its intellectual property rights through centralized app distribution is reasonable, and the Court declines to second-guess that judgment on an underdeveloped record. *See In re Citric Acid Litig.*, 191 F.3d 1090, 1101 (9th Cir. 1999) (“Courts have recognized that firms must have broad discretion to make decisions based on their judgments of what is best for them . . .”).

Accordingly, the Court finds that Apple’s app distribution restrictions do not violate Section 1 of the Sherman Act.

3. Count 5: iOS In-App Payment Solutions Market Analysis

In Count 5, Epic Games avers that Apple has unreasonably restrained trade in the “iOS In-App Payment Processing Market” by requiring developers to “use Apple’s In-App Purchase for in-app purchases of in-app content to the exclusion of any alternative solution or third-party payment processor.”⁶¹⁵ This claim fails for substantially the same reasons that Count 3 fails.

At step one, for the reasons stated, *supra* Facts § V.B.1. and Law § II.C.2.b.i., Epic Games has presented some direct and indirect evidence showing that Apple’s IAP functionality has had anticompetitive effects.

At step two, for the reasons stated in both the Count 3 analysis as well as the Court’s findings of facts with respect to IAP, *supra* Facts § V.B.2 and Law § II.C.2.b.ii, Apple has proffered more than three procompetitive justifications for the terms of the DPLA relating to IAP. One, IAP is the mechanism by which Apple can easily receive its commission and is further how Apple collects a royalty for the use of its intellectual property. Two, IAP provides

definition of unauthorized access. Nor is it clear whether Apple can impose standards on other app stores.

⁶¹³ Trial Tr. (Closing Arguments) 4156:20.

⁶¹⁴ Dkt. No. 276-1 at 4.

⁶¹⁵ Compl. ¶ 227.

consumers with a unitary safe and secure means to execute transactions on the iOS platform. Three, IAP offers consumers a centralized purchasing system, whereby consumers have a convenient way to both execute and track transactions on the iOS platform.

At step three, Epic Games has identified no suitable less restrictive alternative for Apple's use of IAP based on the current record. The only alternative that Epic Games proposes is that Apple be barred from restricting or deterring in any way "the use of in-app payment processors other than IAP."⁶¹⁶ This proposed alternative is deficient for several reasons:

First, and most significant, as discussed in the findings of facts, IAP is the method by which Apple collects its licensing fee from developers for the use of Apple's intellectual property. Even in the absence of IAP, Apple could still charge a commission on developers. It would simply be more difficult for Apple to collect that commission.⁶¹⁷

Indeed, while the Court finds no basis for the specific rate chosen by Apple (*i.e.*, the 30% rate) based on the record, the Court still concludes that Apple is entitled to *some* compensation for use of its intellectual property. As established in the prior sections, *see supra* Facts §§ II.C., V.A.2.b., V.B.2.c., Apple is entitled to license its intellectual property for a fee, and to further guard against the uncompensated use of its intellectual property. The requirement of usage of IAP accomplishes this goal in the easiest and most direct manner, whereas Epic Games' only proposed alternative would severely undermine it. Indeed, to the extent Epic Games suggests that Apple receive nothing from in-app purchases made on its platform,⁶¹⁸ such a remedy is inconsistent with prevailing intellectual property law.

Second, if Apple could no longer require developers to use IAP for digital transactions, Apple's competitive advantage on security issues, in the broad sense, *see supra* Facts § V.B.2.a., would be undermined and ultimately could decrease consumer choice in terms of smartphone devices and hardware.

Third, but to a lesser extent, the use of different payment solutions for each app may reduce the quality of the experience for some consumers by denying users the centralized option of managing a single account through IAP. This would harm both consumers and developers by weakening the quality of the App Store to those that value this centralized system.

Thus, the Court concludes that Apple's restrictions as to its IAP and separate payment processors do not violate Section 1 of the Sherman Act.

⁶¹⁶ Epic Games COL ¶ 642.

⁶¹⁷ In such a hypothetical world, developers could potentially avoid the commission while benefitting from Apple's innovation and intellectual property free of charge. The Court presumes that in such circumstances that Apple may rely on imposing and utilizing a contractual right to audit developers annual accounting to ensure compliance with its commissions, among other methods. Of course, any alternatives to IAP (including the foregoing) would seemingly impose both increased monetary and time costs to both Apple and the developers.

⁶¹⁸ Epic Games COL ¶ 643.

D. Section 2 of the Sherman Act: Apple’s Monopoly Maintenance of the iOS App Distribution Market (Count 1) and iOS in-App Payment Solutions Market (Count 4)

Epic Games brings two claims under Section 2 arguing monopoly maintenance: Count 1 is based on its theory of the iOS distribution market and Count 4 is based on the iOS in-app payment solutions market. The legal framework is the same for both.

1. Legal Framework

Section 2 of the Sherman Act prohibits persons from “monopoliz[ing], or attempt[ing] to monopolize, or combin[ing] or conspir[ing] with any other person or persons, to monopolize any part of the trade or commerce among the several States, or with foreign nations.” 15 U.S.C. § 2. A claim for unlawful monopolization under Section 2 of the Sherman Act requires that a plaintiff show: “(a) the possession of monopoly power in the relevant market; (b) the willful acquisition or maintenance of that power; and (c) causal antitrust injury.” *Qualcomm Inc.*, 969 F.3d at 989–90.

To recap: monopoly power is “the power to control prices or exclude competition.” *Grinnell Corp.*, 384 U.S. at 571 (quotation marks omitted). “[A] firm is a monopolist if it can profitably raise prices substantially above the competitive level,” *Microsoft Corp.*, 253 F.3d at 51, “without inducing so rapid and great an expansion of output from competing firms as to make the supracompetitive price untenable,” *Harrison Aire, Inc.*, 423 F.3d at 380 (internal quotation marks omitted).

Section 2 monopolization claims “must be judged on a market-by-market basis.” *Syufy Enters.*, 903 F.2d at 672 n.22; *see also Walker Process Equip., Inc. v. Food Mach. & Chem. Corp.*, 382 U.S. 172, 177 (1965) (“Without a definition of [the] market there is no way to measure [the defendant’s] ability to lessen or destroy competition.”).

2. Count 1: iOS App Distribution Market Analysis

In Count 1, Epic Games claims that Apple has a monopoly in the “iOS App Distribution Market” and has unlawfully maintained the monopoly by prohibiting iOS app developers from distributing their apps through alternative channels.

In short, this claim fails for two significant reasons: (1) Epic Games fails to prove the first element, that Apple has monopoly power in the relevant product and geographic market; and (2) Epic Games alternatively fails to satisfy the rule of reason analysis under Section 1—an acknowledged less exacting test as compared to Section 2.

First, the Court has found that the relevant market is the global mobile gaming transactions. Epic Games did not argue that Apple had monopoly power in this market. Instead, Epic Games focused on its two-tiered aftermarket theory. The Court will not rehash the failed analysis here. Suffice it to say, neither parties’ proposed markets ultimately persuaded the Court. Rather, Epic Games’ proposed market ignored greater market pressures, and Apple’s proposed market was overbroad in its inclusion of similar products.

As demonstrated with respect to the relevant market, Apple does not have substantial market power equating to monopoly power. While considerable, Epic Games has failed to show that Apple's market power is durable and sustaining given the current state of the relevant market. For that reason, the Court finds that Epic Games failed to prove the first element of a Section 2 claim: the possession of monopoly power in the relevant market.

Second, and alternatively, Epic Games' Section 2 claims fail to satisfy the substantively similar rule of reason analysis for similar reasons as Section 1. Epic Games' Section 1 and Section 2 claims are based on the same conduct and restrictions: namely, restrictions on both distribution of apps as well as the use of non-IAP payment processors. As the Court has found above, Epic Games has failed to persuade on this record that these ultimate restrictions are anticompetitive. Because "the three-part burden-shifting test under the rule of reason is essentially the same" under Sections 1 and 2, and "proving an antitrust violation under § 2 of the Sherman Act is more exacting than proving a § 1 violation," the analysis here applies to the monopolization claims if required and fails for the same reasons. *Qualcomm*, 969 F.3d at 991–92; *see also Williams*, 999 F.2d at 448 ("[A] § 1 claim insufficient to withstand summary judgment cannot be used as the sole basis for a § 2 claim.").

In sum, Epic Games' monopolization claims fail because Epic Games has failed to demonstrate that (i) Apple possesses monopoly power in the relevant market and that (ii) the challenged restrictions are anticompetitive under the rule of reason.

3. Count 4: iOS In-App Payment Solutions Market Analysis

In Count 4, Epic Games claims that Apple has a monopoly in the "iOS In-App Payment Processing Market" and has unlawfully maintained the monopoly by requiring "iOS app developers that sell in-app content to exclusively use Apple's In-App Purchase." This claim fails for the same reasons as Count 2.

As with its Section 2 monopolization claim for the distribution of apps (Count 2), Epic Games' Section 2 claim fails at the outset because Apple does not have monopoly power in the relevant product market.

III. SECTION 1 OF THE SHERMAN ACT: TYING CLAIM (COUNT 6)

Epic Games' Count 6 alleges a violation of Section 1 of the Sherman Act based on the existence of a tie between app distribution, on the one hand, and IAP on the other.

A. Legal Standard

Tying involves the linking of two separate products from two separate product markets. *Jefferson Parish*, 466 U.S. at 21. "[T]he essential characteristic of an invalid tying arrangement lies in the seller's exploitation of its control over the tying product to force the buyer into the purchase of a tied product that the buyer either did not want at all, or might have preferred to purchase elsewhere on different terms." *Id.* at 12.

Tying arrangements may be evaluated under Section 1 of the Sherman Act under either *per se* or rule of reason analysis. *See id.* at 29. The *per se* rule applies "only after considerable

experience with certain business relationships,” *Broad. Music, Inc. v. Columbia Broad. Sys., Inc.*, 441 U.S. 1, 9 (1979) (citation omitted), shows that a restraint “always or almost always tend to restrict competition and decrease output,” *Amex*, 138 S. Ct. at 2283 (citation omitted).

“For a tying claim to suffer per se condemnation, a plaintiff must prove: (1) that the defendant tied together the sale of two distinct products or services; (2) that the defendant possesses enough economic power in the tying product market to coerce its customers into purchasing the tied product; and (3) that the tying arrangement affects a not insubstantial volume of commerce in the tied product market.” *Cascade Health Sols. v. PeaceHealth*, 515 F.3d 883, 913 (9th Cir. 2008); *see also Jefferson Parish*, 466 U.S. at 12–18; *Eastman Kodak*, 504 U.S. at 461–62.

The first element requires that the plaintiff must prove that the alleged tying product and the alleged tied product are “separate and distinct” products. *Rick-Mik Enters., Inc. v. Equilon Enters. LLC*, 532 F.3d 963, 974 (9th Cir. 2008). Further, if tied, the tie, would link “two separate product markets.” *Jefferson Parish*, 466 U.S. at 21; *see also Microsoft Corp.*, 253 F.3d at 85 (“[U]nless products are separate, one cannot be ‘tied’ to the other.”).

“[T]he answer to the question whether one or two products are involved turns not on the functional relation between them, but rather on the character of the demand for the two items.” *Jefferson Parish*, 466 U.S. at 19; *see also Rick-Mik*, 532 F.3d at 975. There must be “sufficient demand for the purchase of [the tied product] separate from [the tying product] to identify a distinct product market in which it is efficient to offer [the tied product] separately from [the tying product].” *Jefferson Parish*, 466 U.S. at 21–22; *see also Rick-Mik*, 532 F.3d at 975.

“[T]he ‘purchaser demand’ test of *Jefferson Parish* examine[s] direct and indirect evidence of consumer demand for the tied product separate from the tying product. Direct evidence addresses the question whether, when given a choice, consumers purchase the tied good from the tying good maker, or from other firms. Indirect evidence includes the behavior of firms without market power in the tying good market, presumably on the notion that (competitive) supply follows demand.” *Rick-Mik*, 532 F.3d at 975 (internal quotation marks and citations omitted); *see also id.* (“If competitive firms always bundle the tying and tied goods, then they are a single product.”).

With respect to the second element, a tie exists where “sale of the desired (‘tying’) product is conditioned on purchase of another (‘tied’) product.” *Aerotec*, 836 F.3d at 1178. “[T]he essential characteristic of an invalid tying arrangement lies in the seller’s exploitation of its control over the tying product to force the buyer into the purchase of a tied product that the buyer either did not want at all, or might have preferred to purchase elsewhere on different terms.” *Jefferson Parish*, 466 U.S. at 12. “A plaintiff must present evidence that the defendant went beyond persuasion and coerced or forced its customer to buy the tied product in order to obtain the tying product.” *Paladin Assocs.*, 328 F.3d at 1159.

Finally, “the Supreme Court has condemned tying arrangements when the seller has the market power to force a purchaser to do something that he would not do in a competitive market.” *Cascade Health Sols.*, 515 F.3d at 915. “[I]n all cases involving a tying arrangement,

the plaintiff must prove that the defendant has market power in the tying product.” *Illinois Tool Works Inc.*, 547 U.S. at 46; *Rick-Mik*, 532 F.3d at 972.

B. Analysis

At the outset, the parties dispute whether the *per se* analysis or the rule of reason analysis should control the Court’s analysis. The Court need not decide this dispute. Epic Games’ claim fails under either framework because a tying claim cannot be sustained where the alleged good is not a “separate and distinct product.” *Rick-Mik*, 532 F.3d at 974; *Microsoft Corp.*, 253 F.3d at 85 (“[U]nless products are separate, one cannot be ‘tied’ to the other.”). Here, Epic Games argues that a tying claim exists because Apple is forcing distributors who use the iOS app distribution platform (the alleged tying product) to also use IAP (the alleged tied product). As discussed above, *supra* Facts § II.C., IAP is not a product. Two core factual issues lead to this conclusion: integration and consumer demand.

With respect to integration, the Court described in detail how IAP functions and the Court does not reiterate it here. Suffice it to say, IAP is not merely a payment processing system, as Epic Games suggests, but a comprehensive system to collect commission and manage in-app payments. This IAP system is not bought or sold but it is integrated into the iOS devices. “[I]ntegration [is] common” among technological products and services.” *Microsoft Corp.*, 253 F.3d at 93.

Rick-Mik supports this conclusion. There, the Ninth Circuit found that Equilon’s (also known as Shell Oil Co.) requirement that franchisees process all credit and debit card transactions through Equilon’s own system did not involve two separate products. *Rick-Mik*, 532 F.3d at 967, 974. Said differently, the purchase of an oil company’s franchise (the tying product) and the requirement that it use Equilon’s credit-card processing system (the tied product) were not two distinct products. *Id.* Rather, the Court found that franchises are “almost by definition” a bundle of related products and services. *Id.* at 674. The proper inquiry was whether the allegedly tied products were “integral components of the business method being franchised.” *Id.*

Here, as there, IAP is but one component of the full suite of services offered by iOS and the App Store. Moreover, and as discussed above, the App Store is a two-sided transaction platform. *See Amex*, 138 S. Ct. at 2286 n.8 (noting that “a two-sided platform” is one that “offers different products or services to two different groups who both depend on the platform to intermediate between them”). By definition, the platform has two sides: the developer on one side providing gaming apps and the consumer on the other, purchasing the apps. This is a single platform which cannot be broken into pieces to create artificially two products.⁶¹⁹ *See, e.g., Serv.*

⁶¹⁹ This conclusion is further bolstered by comparison to other platforms in the wider gaming market. *See Microsoft Corp.*, 253 F.3d at 88 (comparing the bundling to competitive firms); *cf. In re: Cox Enters., Inc.*, 871 F.3d 1093, 1109 (10th Cir. 2017) (bundling in the premium cable industry found to be “simply more efficient than offering them separately”). As described above, the wider gaming industry routinely use walled gardens, including the PlayStation Store, the Nintendo eShop, and the Xbox Games Store. These game stores are vertically integrated with respect to distribution, content delivery, and payment functionalities.

& Training, Inc. v. Data Gen. Corp., 737 F. Supp. 334, 343 (D. Md. 1990) (rejecting tying claim because alleged tied product was “one feature of [defendant’s] integrated and unified product”); Areeda & Hovenkamp § 1741a (“a car with tires attached might be deemed a single product because a vehicle that can be driven is the essence of what the customer buys”).

Moreover, with respect to consumer demand, Epic Games presented no evidence showing that demand exists for IAP as a standalone product. As discussed above, *supra* Facts § II.C., Epic Games’ argument mischaracterizes IAP and its functionality. Payment processing is simply an input into the larger bundle of services provided by the IAP system.⁶²⁰ While there may be a market for payment processing, that fact is irrelevant as IAP is not just payment processing.⁶²¹

In sum, whether analyzed as an integrated functionality or from the perspective of consumer demand, IAP is not a separate product from iOS app distribution. Thus, Epic Games’ Count 6 fails to show the existence of an illegal tie under Section 1.

IV. CALIFORNIA’S CARTWRIGHT ACT (COUNTS 7, 8, AND 9)

Epic Games asserts three claims against Apple under the Cartwright Act: (i) Count 7 for unreasonable restraint of trade in the iOS app distribution market; (ii) Count 8 for unreasonable restraint of trade in the iOS in-app payment solutions market; and (iii) Count 9 for tying of app distribution and payment processing. Epic Games argues that its Cartwright Act claims are based on the same conduct as the analogous Sherman Act claims. Specifically, Count 7 is based on the same conduct as Count 3; Count 8 is based on the same conduct as Count 5; and Count 9

See supra Facts § II.D.3.c. The only exception is Epic Games Store. However, as noted, plaintiff’s move occurred in the context of litigation planning. *Id.* § I.B.3.a.

⁶²⁰ In fact, as noted, IAP does not itself even *process payments*—that function is performed by a third-party settlement provider like Chase Bank with which Apple contracts. And unlike the purported alternatives that Epic Games proposes (*e.g.*, PayPal), Apple has never tried to market the technology for use on other digital transaction platforms, and Epic Games does not contend otherwise.

⁶²¹ The Court also notes that in the but-for world where developers could use an alternative processor, Apple would still be contractually entitled to its commission on any purchase made within apps distributed on the App Store. Thus, so long as the alternative processor charged a non-zero commission or fee for its services, no economically rational developer would choose to use the alternative processor, because on each transaction, they would *still* have to pay Apple its commission, *and* they would have to pay the alternative processor a commission for its services. For the same reason, the fact that some developers like Facebook and Spotify have tried to avoid Apple’s commission by bypassing IAP is not evidence that there is separate demand for IAP, only that developers would prefer not to pay Apple a commission. Epic Games’ reliance on this evidence thus “conflates competition on the merits with Epic Games’ goal of avoiding Apple’s 30%.” *Epic Games, Inc.*, 493 F. Supp. 3d at 843.

is based on the same conduct as Count 6. The basic legal framework is the same for all three claims.

A. Legal Framework

The Cartwright Act makes “unlawful, against public policy and void” “every trust,” which is defined as “a combination of capital, skill, or acts by two or more persons . . . [t]o create or carry out restrictions in trade or commerce.” Cal. Bus. & Prof. Code §§ 16720(a), 16726. Interpretations of federal antitrust law are at most instructive, not conclusive, when construing the Cartwright Act, given that the Cartwright Act was modeled not on federal antitrust statutes but instead on statutes enacted by California’s sister states around the turn of the 20th century.” *Aryeh v. Canon Bus. Sols., Inc.*, 55 Cal. 4th 1185, 1195 (2013). “The Ninth Circuit has recognized after *Aryeh* it ‘is no longer the law in California’ that the Cartwright Act is ‘coextensive with the Sherman Act.’” *In re Lithium Ion Batteries Antitrust Litig.*, No. 13–MD–2420, 2014 WL 4955377, at *10 (N.D. Cal. Oct. 2, 2014) (quoting *Samsung Elecs. Co. v. Panasonic Corp.*, 747 F.3d 1199, 1205 n.4 (9th Cir. 2014)).

B. Analysis

Epic Games argues that, even if its claims under the Sherman Act fail, it is nevertheless entitled to relief on its Cartwright Act claims because the Cartwright Act is broader in range and deeper in reach than the Sherman Act.⁶²² Apple disagrees arguing that where, as here, Epic Games has not identified any specific and material differences between the Cartwright Act and the Sherman Act, plaintiff cannot prevail on a Cartwright Act where its claims fail under the Sherman Act.

The Court agrees with Apple. Epic Games has not cited any authority for the contrary position. Plaintiff’s authorities contain conclusory statements about the broader “reach” of the Cartwright Act relative to the Sherman Act.⁶²³ Because the context of these statements is inapposite, the statements do not support a finding that the Cartwright Act claims here can survive notwithstanding the failure of Sherman Act claims. *See, e.g., Cianci v. Superior Court*, 40 Cal. 3d 903, 917–18 (1985) (holding that the “broad” scope of the Cartwright Act covers entities involved in anticompetitive conduct “in every type of business,” including in the “medical profession,” and noting, in dicta, that the reach of the Cartwright Act includes “threats to competition in their incipiency” similarly to Section 7 of the Clayton Act, which prohibits mergers that may substantially lessen competition); *In re Capacitors Antitrust Litig.*, 106 F. Supp. 3d 1051, 1072 (N.D. Cal. 2015) (declining to apply standard for federal antitrust standing in the context of claims brought under the Cartwright Act in light of the absence of a “definitive decision” by California courts that doing so would be permissible). Because Epic Games has not met its burden to show that it can prevail on its Cartwright Act claims despite the failure of its analogous Sherman Act claims, the Court finds and concludes that Epic Games’ Cartwright Act claims fail for the same reasons as its analogous Sherman Act claims.

⁶²² *See* Epic Games COL ¶ 426.

⁶²³ *See* Dkt. No. 276 at 84–85; Epic Games COL ¶ 426.

This conclusion is confirmed by a review of California authorities applying the Cartwright Act in the context of claims asserting an unreasonable restraint of trade, as in Counts 7 and 8, and tying, as in Count 9.

As in the context of claims under Section 1 of the Sherman Act, California courts employ the rule of reason to determine whether a restraint of trade that is not subject to *per se* treatment, such as the DPLA⁶²⁴, is unreasonable and, therefore, unlawful under the Cartwright Act. *See In re Cipro Cases I & II*, 61 Cal. 4th 116, 146 (2015) (holding that “antitrust illegality” under the Cartwright Act where a “challenged agreement involves a restraint of trade” depends on the “traditional rule of reason” analysis because both “the Cartwright Act and Sherman Act carry forward the common law understanding that ‘only unreasonable restraints of trade are prohibited’” (citation omitted)). The rule of reason inquiry in the context of the Cartwright Act, as in the federal context, looks to “whether the challenged conduct promotes or suppresses competition,” based on “the facts peculiar to the business in which the restraint is applied, the nature of the restraint and its effects, and the history of the restraint and the reasons for its adoption.” *Id.* (internal quotation marks and citation omitted).

Here, the Court has carefully considered the evidence in the record and has determined, based on the rule of reason, that the DPLA provisions at issue in Counts 3 (app distribution) and 5 (IAP) have procompetitive effects that offset their anticompetitive effects, and that Epic Games has not shown that these procompetitive effects can be achieved with other means that are less restrictive. These findings, which defeat Counts 3 and 5, also defeat Counts 7 and 8. As noted above, Epic Games has cited no authority that compels a different conclusion.

The result is similar with respect to Count 9. As is the case with a tying claim in violation of the Sherman Act, a tying claim under the Cartwright Act requires the existence of two separate products. *See Freeman v. San Diego Ass’n of Realtors*, 77 Cal. App. 4th 171, 184 (1999) (“The threshold element for a tying claim is the existence of separate products or services in separate markets. Absent separate products in separate markets, the alleged tying and tied products are in reality a single product.” (internal citation omitted)).

Here, as discussed above, the Court has found and concluded Epic Games’ tying claim under the Sherman Act (Count 6) fails because plaintiff has not shown that IAP is a separate product from iOS App Distribution. Because the tying claim under the Cartwright Act (Count 9) is based on the same conduct as Count 6, that claim fails for the same reason as Count 6. *See*

⁶²⁴ Apple argues that Epic Games’ Cartwright Act claims fail for lack of concerted action because the claims challenge “only unilateral conduct,” and the Cartwright Act “does not impose liability for ‘wrongful conduct on the part of a single entity.’” Apple COL ¶¶ 588–589. The Court disagrees with this interpretation of Epic Games’ claims. While Counts 7 and 8, as Counts 3 and 5, are predicated on the theory that the DPLA is an agreement between Apple and Epic Games, it may include particular terms that would constitute unreasonable restraints of trade. *See Kolling v. Dow Jones & Co.*, 137 Cal. App. 3d 709, 719 (1982) (“If a ‘single trader’ pressures customers or dealers into adhering to” restraints of trade, then “an unlawful combination [under the Cartwright Act] is established, irrespective of any monopoly or conspiracy, and despite the recognized right of a producer to determine with whom it will deal” (citations omitted)).

Freeman, 77 Cal. App. 4th at 184 (holding that a tying claim under the Cartwright Act fails in the absence of two separate products in separate markets). Again, Epic Games has cited no authority that warrants a different outcome.

V. SECTION 2 OF THE SHERMAN ACT: APPLE’S DENIAL OF AN ESSENTIAL FACILITY IN THE IOS APP DISTRIBUTION MARKET (COUNT 2)

The legal elements of an essential facility claim under governing Ninth Circuit precedent are undisputed. To establish such a claim, a plaintiff must show that (i) the defendant is “a monopolist in control of an essential facility”; (ii) the plaintiff “is unable reasonably or practically to duplicate the facility”; (iii) the defendant “has refused to provide [the plaintiff] access to the facility”; and (iv) “it is feasible for [the defendant] to provide such access”. *Aerotec*, 836 F.3d at 1185; *MetroNet Servs. Corp. v. Qwest Corp.*, 383 F.3d 1124, 1128–29 (9th Cir. 2004); *Alaska Airlines, Inc. v. United Airlines, Inc.*, 948 F.2d 536, 542–46 (9th Cir. 1991).

Epic Games has failed to prove this claim for myriad reasons, but most convincingly for two. First, for the reasons set forth above, Epic Games has failed to prove that Apple is an illegal monopolist in control of the iOS platform. This alone is sufficient to defeat the claim. Second, the claim would still fail because Epic Games failed to prove that the iOS platform is an essential facility. The best evidence of this is Epic Games’ own expert, Dr. Evans, who refused to endorse the argument that the iOS platform is an essential facility.⁶²⁵ On this issue, he and Professor Schmalensee agree.⁶²⁶

The term “essential facility” is a term of art under the antitrust laws. Caselaw describes essential facilities as those that are not capable of being replicated by competitors and serve as a conduit for the distribution of another product. For example, sports stadiums facilitate the display of indoor sports, *see Fishman v. Estate of Wirtz*, 807 F.2d 520, 532 (7th Cir. 1986), and railroad bridges permit continuation of rail service and delivery of freight, *see United States v. Terminal R.R. Ass’n*, 224 U.S. 383, 392–94 (1912). While prior cases have focused only on physical infrastructures of a finite availability (such as a bridge or a power network), an “essential facility” can exist even in the absence of such traditional physical attributes. *See MCI Commc’ns Corp. v. Am. Tel. & Tel. Co.*, 708 F.2d 1081, 1148 (7th Cir. 1983).

⁶²⁵ Not only did Dr. Evans confirm in his live testimony that he would not describe iOS or Android as utilities, Trial Tr. (Evans) 2381:21–2383:18, Dr. Evans twice declined to express any opinion related to an essential facilities claim. Trial Tr. (Evans) 1673:4–11, 2390:16–2391:2; *see also generally* Ex. Expert 1 (Evans) § II.

⁶²⁶ As a corollary, given that the nature of the “facility” is one solely comprised of intellectual property, as opposed to a physical structure, the question arises whether this claim could ever be recognized under Section 2 as a matter of law. Citing primarily district court cases, Apple argues it cannot be forced to license its intellectual property and to hold otherwise would chill innovation and investment. While the argument appears meritorious, the Court declines to rule on this issue as it was not fully vetted and is not necessary to the resolution of this claim.

To constitute an essential facility, “access to the facility or resource must be truly ‘essential’ in the sense that competitors cannot simply duplicate it or find suitable alternatives, and that absent access, competitors’ ability to compete will be substantially constricted.” 1 William C. Holmes, *Intellectual Property and Antitrust Law* § 6:10 (2021)⁶²⁷; *Paladin Assocs.*, 328 F.3d at 1162–63 (no viable claim under the “essential facilities” doctrine where customers were able to obtain gas from other pipelines and sources and noting that a facility is ‘essential’ only if control of the facility carries with it the power to eliminate competition in a downstream market”).

Obviously, under its theory, given the proprietary nature of iOS, plaintiff could not replicate iOS. However, as defined by the Court, in terms of distribution of mobile apps, multiple avenues *do exist* to distribute the content to the consumer. Distribution can occur through web apps, by web access, and through other games stores. This doctrine does not require distribution in the manner preferred by the competitor, here native apps. The availability of these other avenues of distribution, even if they are not the preferred or ideal methods, is dispositive of Epic Games’ claim. The doctrine does not demand an ideal or preferred standard.

Based on these reasons, the Section 2 claim based on an essential facilities theory fails.

VI. CALIFORNIA’S UNFAIR COMPETITION LAW (COUNT 10)

Antitrust law does not end with the Sherman Act. “States have regulated against monopolies and unfair competition for longer than federal government, and federal law is intended only ‘to supplement, not to displace, state antitrust remedies.’” *In re Cipro Cases I & II*, 61 Cal. 4th at 160 (quoting *Cal. v. ARC Am. Corp.*, 490 U.S. 93, 102 (1989)); *see also* Areeda & Hovenkamp §§ 216, 2401 (describing legislative history).

California’s Unfair Competition Law (“UCL”) prohibits business practices that constitute “unfair competition,” which is defined, in relevant part, as “any unlawful, unfair or fraudulent

⁶²⁷ Citing circuit cases: *e.g.*, *Pittsburg County Rural Water Dist. No. 7 v. City of McAlester*, 358 F.3d 694, 721 (10th Cir. 2004) (affirming dismissal of an essential facilities claim where the competitor admitted that it had a “suitable available alternative water supply”); *Midwest Gas Services, Inc. v. Indiana Gas Co., Inc.*, 317 F.3d 703, 713–14 (7th Cir. 2003) (dismissing an essential facilities claim where a distributor of natural gas had other routes available even if more costly); *Paddock Publ’ns, Inc. v. Chicago Tribune Co.*, 103 F.3d 42, 44–56 (7th Cir. 1996) (“Unlike *United States v. Terminal R.R. Ass’n*, 224 U.S. 383 (1912), the granddaddy of these cases, in which the Court held that a bottleneck facility that could not feasibly be duplicated must be shared among rivals, this case does not involve a single facility that monopolizes one level of production and creates a potential to extend the monopoly to others. We have, instead, competition at each level of production; no one can ‘take over’ another level of production by withholding access from disfavored rivals.”); *Twin Lab’ys, Inc. v. Weider Health & Fitness*, 900 F.2d 566, 612–13 (2d Cir. 1990) (defendant’s resource was not “essential” where alternate resources existed); *Directory Sales Mgmt. Corp. v. Ohio Bell Tel. Co.*, 833 F.2d 606 (6th Cir. 1987) (same).

business act or practice.” Cal. Bus. & Prof. Code § 17200. Each of these descriptions provides a separate “variety” of unfair competition. Thus, “a practice may be deemed unfair even if not specially proscribed by some other law” and even if not violating an antitrust statute. *See Cel-Tech Commc’ns, Inc. v. L.A. Cellular Tel. Co.*, 20 Cal. 4th 163, 180, 187 (1999).

The UCL permits claims to be brought by any “person,” which includes “natural persons, corporations, firms, partnerships, joint stock companies, associations and other organizations of persons.” Cal. Bus. & Prof. Code §§ 17201, 17204. To bring a claim under the UCL, a plaintiff must “(1) establish a loss or deprivation of money or property sufficient to quantify as injury in fact, i.e., *economic injury*, and (2) show that the economic injury was the result of, i.e., *caused by*, the unfair business practice.” *Kwikset Corp. v. Superior Court*, 51 Cal. 4th 310, 322 (2011) (emphasis in original); *see also* Cal. Bus. & Prof. Code § 17204.

Epic Games challenges Apple’s conduct under the “unlawful” and “unfair” provisions of the UCL. Apple disputes both claims and further argues that Epic Games lacks “customer” standing. The Court addresses standing and then each claim.

A. Standing

The injury-in-fact requirement of the UCL incorporates standing under Article III of the United States Constitution. *Kwikset*, 51 Cal. 4th at 322–23. Accordingly, the injury in fact must be “concrete and particularized . . . and actual or imminent, not conjectural or hypothetical.” *Lujan v. Defenders of Wildlife*, 504 U.S. 555, 560 (1992) (simplified). In addition, the UCL requires an economic injury. *Kwikset*, 51 Cal. 4th at 323. For example, “[a] plaintiff may (1) surrender in a transaction more, or acquire in a transaction less, than he or she otherwise would have; (2) have a present or future property interest diminished; (3) be deprived of money or property to which he or she has a cognizable claim; or (4) be required to enter into a transaction, costing money or property, that would otherwise have been unnecessary.” *Id.* Last, a plaintiff must show “a causal connection” between the defendant’s conduct and the alleged injury. *Id.* at 326 (internal quotation marks and citation omitted).

Here, Apple does not dispute Epic Games’ standing as a potential competitor: Epic Games wanted to open a competing iOS game store and could not. Because Epic Games would earn revenues from a competing store, it has suffered an economic injury. However, Apple challenges Epic Games’ standing as a consumer. For that interpretation, Epic Games argues that it is a business customer of Apple’s App Store and has been economically injured because it could not distribute games directly to consumers at lower cost.

The precise meaning of “consumer” under the UCL is undefined. Generally, the UCL makes a distinction between “consumer” and “competitor” suits. *See Cel-Tech*, 20 Cal. 4th at 187 & n.12; *Barquis v. Merchs. Collection Assn.*, 7 Cal. 3d 94, 109–10 (1972); *Kasky v. Nike, Inc.*, 27 Cal. 4th 939, 949 (2002). There is no specific third category for non-competitor business.⁶²⁸ Here, despite Apple’s position, both parties’ experts agree that developers like Epic

⁶²⁸ The Court recognizes *Levitt v. Yelp! Inc.*, and finds it distinguishable. There, in terms of analyzing the UCL claim, the court found the competitor standard applied even though plaintiffs and *Yelp!* did not compete. There, “the crux of the business owners’ complaint [was]

Games jointly consume Apple’s game transactions and distribution services together with iOS users.⁶²⁹ Thus, although the question is close, the Court finds that Epic Games has standing to bring a UCL claim as a quasi-consumer, not merely as a competitor.

B. “Unlawful” Practices

Under the “unlawful” prong of the UCL, Epic Games must show that Apple’s conduct “can properly be called a business practice and that at the same time is forbidden by law.” *Korea Supply Co. v. Lockheed Martin Corp.*, 29 Cal. 4th 1134, 1143 (2003) (internal quotation marks and citation omitted). “Virtually any law . . . can serve as a predicate for an action under Business and Professions Code section 17200.” *Durell v. Sharp Healthcare*, 183 Cal. App. 4th 1350, 1361 (2010) (citation omitted).

Here, for the reasons stated above, Epic Games has not shown a violation of any other law. Accordingly, the claim under the “unlawful” standard fails.

C. “Unfair” Practices

The “unfair” prong of the UCL may differ for consumer and competitor suits. As a competitor who claims to have suffered injury from Apple’s unfair practices, Epic Games must show that Apple’s conduct (1) “threatens an incipient violation of an antitrust law,” (2) “violates the policy or spirit of one of those laws because its effects are comparable to or the same as a violation of the law,” or (3) “otherwise significantly threatens or harms competition.” *Cel-Tech*, 20 Cal. 4th at 187. These findings must be “tethered to some legislatively declared policy or proof of some actual or threatened impact on competition.” *Id.* at 186–87; *see also Hodson v. Mars, Inc.*, 891 F.3d 857, 866 (9th Cir. 2018).

As a quasi-consumer, on the other hand, Epic Games has several tests available for showing unfairness. Although some courts have continued to apply the “tethering” test stated above, others have applied a “balancing” test that requires the challenged business practice to be “immoral, unethical, oppressive, unscrupulous, or substantially injurious to consumers” based on the court’s weighing of “the utility of the defendant’s conduct against the gravity of the harm to the alleged victim.”⁶³⁰ *Drum v. San Fernando Valley Bar Ass’n*, 182 Cal. App. 4th 247,

that Yelp’s conduct unfairly injures their economic interests [relative] to the benefit of other businesses who choose to advertise with Yelp.” 765 F.3d 1123, 1136 (9th Cir. 2014). Here, Epic Games is not claiming that it is injured relative to other developers—developers are all subject to the same restrictions. This action, unlike *Levitt*, includes a view that Epic Games is a consumer of Apple’s two-sided platform.

⁶²⁹ Ex. Expert 8 (Schmalensee) ¶¶ 31–34, 42; Ex. Expert 1 (Evans) ¶¶ 14, 22–24.

⁶³⁰ Still others have applied the “FTC test,” which requires that “(1) the consumer injury must be substantial; (2) the injury must not be outweighed by any countervailing benefits to consumers or competition; and (3) it must be an injury that consumers themselves could not reasonably have avoided.” *Drum*, 182 Cal. App. 4th at 257 (internal quotation marks and citation omitted). The Court notes the Ninth Circuit has declined to apply the FTC test with respect to anti-consumer conduct “in the absence of a clear holding from the California Supreme

257 (2010) (citations omitted). Stated otherwise, the balancing test “involves an examination of that practice’s impact on its alleged victim, balanced against the reasons, justifications and motives of the alleged wrongdoer.” *Nationwide Biweekly Admin., Inc. v. Superior Court of Alameda Cty.*, 9 Cal. 5th 279, 303 n.10 (2020) (internal quotation marks and citation omitted).

These tests “are not mutually exclusive.” *Lozano v. AT&T Wireless Servs., Inc.*, 504 F.3d 718, 736 (9th Cir. 2007); *see also Davis v. HSBC Bank Nevada, N.A.*, 691 F.3d 1152, 1169–70 (9th Cir. 2012) (applying both tests). Accordingly, the Court considers both.

1. Tethering Test

Under the “tethering” test, “California courts require a close nexus between the challenged act and the legislative policy.” *Hodson*, 891 F.3d at 866 (citation omitted). That is because “courts may not apply purely subjective notions of fairness” or “determine the wisdom of any economic policy,” which “rests solely with the legislature.” *Cel-Tech*, 20 Cal. 4th at 184 (internal quotation marks and citation omitted). However, unfair practices under this test are not limited to violations of existing laws. *Id.* at 180. Instead, California courts distinguish between conduct made lawful (or for which relief is barred) by a statute and conduct not prohibited by any statute. *See id.* at 183. The latter may be actionable under the “unfair” prong. *Id.*

Here, Epic Games seeks relief for the same conduct that it challenged under the Sherman and Cartwright Acts. Apple argues that separate consideration under the UCL is inappropriate.⁶³¹ The Court disagrees. *Cel-Tech* expressly recognizes that “incipient” violations of antitrust laws and violations of the “policy or spirit” of those laws with “comparable” effects are prohibited. 20 Cal. 4th at 187. Under Apple’s interpretation, that standard would be rendered meaningless because any conduct that fails under the Sherman Act failed would also fail the UCL. The UCL, however, has “broad, sweeping language[] precisely to enable judicial tribunals to deal with the innumerable new schemes which the fertility of [one’s] invention would contrive.” *Id.* at 181 (simplified). Thus, it warrants separate consideration apart from antitrust laws.

On the present record, however, Epic Games’ claims based on the app distribution and in-app payment processing restrictions fail for the same reasons as stated for the Sherman Act. As explained, Epic Games has demonstrated real anticompetitive effects, but Apple has proffered mostly valid and non-pretextual procompetitive justifications. To a large extent that makes the conduct more than “not anticompetitive” but potentially beneficial to consumers. However, as the Court demonstrated, the procompetitive justifications were only tethered as to certain

Court . . .” *Lozano*, 504 F.3d at 736. The Court does not apply it directly, only as parallel guidance for purposes of the anticompetitive conduct which the Ninth Circuit distinguished. *Id.*

⁶³¹ Apple cites *Chavez v. Whirlpool Corp.*, 93 Cal. App. 4th 363, 375 (2001), but that case does not counsel otherwise. *Chavez* expressly rejected the notion that “an ‘unfair’ business act or practice must violate an antitrust law to be actionable under the unfair competition law,” but found that conduct cannot be unfair where it is “deemed reasonable and condoned under the antitrust laws.” *Id.* As explained here, there is a difference between conduct “deemed reasonable” and conduct for which a violation has not been shown.

restrictions. With respect to *those* restrictions, under the *Cel-Tech* framework, Apple’s conduct is protected. 20 Cal. 4th at 183.

That does not, however, end the matter.⁶³² “A UCL action is equitable in nature.” *Korea Supply Co.*, 29 Cal. 4th at 1144. Courts have “broad discretion” to fashion equitable remedies to serve the needs of justice. *Zhang v. Superior Court*, 57 Cal. 4th 364, 371 (2013); *see also Nationwide Biweekly Admin.*, 9 Cal. 5th at 300. The statute reinforces that discretion by permitting courts to “make such orders or judgments . . . as may be necessary to prevent the use or employ by any person of any practice which constitutes unfair competition.” Cal. Bus. & Prof. Code § 17203.

Epic Games did challenge and litigate the anti-steering provisions albeit the record was less fulsome. While its strategy of seeking broad sweeping relief failed, narrow remedies are not precluded.⁶³³ As discussed at length, the evidence presented showed anticompetitive effects and excessive operating margins under any normative measure. The lack of competition has resulted in decrease information which also results in decreased innovation relative to the profits being made. The costs to developer are higher because competition is not driving the commission rate. As described, the commission rate driving the excessive margins has not been justified. Cross-reference to a historic gamble made over a decade ago is insufficient. Nor can Apple hide behind its self-created web of interlocking rules, regulations, and generic intellectual property claims; or the lack of transparency among various businesses to feign innocence.

Apple’s own records reveal that two of the top three “most effective marketing activities to keep existing users coming back” in the United States, and therefore increasing revenues, are “push notifications” (no. 2) and “email outreach” (no. 3).⁶³⁴ Apple not only controls those avenues but acts anticompetitively by blocking developers from using them to Apple’s own unrestrained gain. As explained before, Apple uses anti-steering provisions prohibiting apps from including “buttons, external links, or other calls to action that direct customers to purchasing mechanisms other than in-app purchase,” and from “encourag[ing] users to use a purchasing method other than in-app purchase” either “within the app or through communications sent to points of contact obtained from account registrations within the app (like email or text).”⁶³⁵ Thus, developers cannot communicate lower prices on other platforms either

⁶³² The Court recognizes a contrary unpublished opinion in *LiveUniverse, Inc. v. MySpace, Inc.*, 304 F. App’x 554, 557 (9th Cir. 2008) which summarily treated the UCL as rising and falling with the Sherman Act. The Court respectfully disagrees (on this record) for the reasons stated.

⁶³³ The FTC Act, which California courts have used as guidance on the UCL, similarly permits remedies beyond the “specific violations alleged in the complaint” that were “litigated in the manner contemplated by the statute.” *Sears, Roebuck & Co. v. FTC*, 676 F.2d 385, 390–91 (9th Cir. 1982).

⁶³⁴ DX-3922.057.

⁶³⁵ PX-2790 §§ 3.1.1, 3.1.3.

within iOS or to users obtained from the iOS platform. Apple’s general policy also prevents developers from informing users of its 30% commission.⁶³⁶

These provisions can be severed without any impact on the integrity of the ecosystem and is tethered to legislative policy. As an initial matter, courts have long recognized that commercial speech, which includes price advertising, “performs an indispensable role in the allocation of resources in a free enterprise system.” *Bates v. State Bar of Arizona*, 433 U.S. 350, 364 (1977) (citation omitted). Restrictions on price information “serve to increase the difficulty of discovering the lowest cost seller . . . and [reduce] the incentive to price competitively[.]” *Id.* at 377. Thus, “where consumers have the benefit of price advertising, retail prices often are dramatically lower than they would be without advertising.” *Id.* Antitrust scholars have recognized the same: “The less information a consumer has about relative price and quality, the easier it is for market participants to charge supracompetitive prices or provide inferior quality.” Areeda & Hovenkamp § 2008c.

In the context of technology markets, the open flow of information becomes even more critical. As explained above, information costs may create “lock-in” for platforms as users lack information about the lifetime costs of an ecosystem. Users may also lack the ability to attribute costs to the platform versus the developer, which further prevents them from making informed choices.⁶³⁷ In these circumstances, the ability of developers to provide cross-platform information is crucial. While Epic Games did not meet its burden to show actual lock-in on this record, the Supreme Court has recognized that such information costs may create the potential for anticompetitive exploitation of consumers. *Eastman Kodak*, 504 U.S. at 473–75.

Thus, although Epic Games has not proven a present antitrust violation, the anti-steering provisions “threaten[] an incipient violation of an antitrust law” by preventing informed choice among users of the iOS platform. *Cel-Tech*, 20 Cal. 4th at 187; *cf. FTC v. Neovi, Inc.*, 604 F.3d 1150, 1158 (9th Cir. 2010) (requiring that “consumers ha[ve] a free and informed choice” under the FTC test for unfairness).⁶³⁸ Moreover, the anti-steering provisions violate the “policy [and] spirit” of these laws because anti-steering has the effect of preventing substitution among platforms for transactions. *Id.*

Accordingly, the Court finds that the anti-steering provisions violate the UCL’s unfair prong under the tethering test.

⁶³⁶ PX-0257; Trial Tr. (Simon) 365:3–367:5; Ex. Depo. (Shoemaker) 144:10–23.

⁶³⁷ Ex. Expert 1 (Evans) ¶ 118.

⁶³⁸ See *Cel-Tech*, 20 Cal. 4th at 185 (looking “for guidance to the jurisprudence arising under the ‘parallel’ section 5 of the [FTC] Act” to determine “what is unfair” under the UCL); see also *People ex rel. Mosk v. Nat’l Res. Co. of Cal.*, 20 Cal. App. 2d 765, 773 (1962) (“[D]ecisions of the federal court [as to what constitutes “unfair” under the FTC Act] are more than ordinarily persuasive.”).

2. Balancing Test

Under the balancing test, the Court must weigh “the utility of the defendant’s conduct against the gravity of the harm to the alleged victim.” *Drum*, 182 Cal. App. 4th at 257. Under this test the focus is on the injury to consumers. Here, the harm to users and developers who are also quasi-consumers, is considerable.⁶³⁹ This trial has exposed numerous anticompetitive effects which need not be recounted in detail. The only justification Apple offers is an analogy: just like a store such as Nordstrom does not advertise prices at Macy’s on its goods, Apple should not have to advertise prices on the web or on Android.⁶⁴⁰ Apple also cites *Amex*, 138 S. Ct. at 2280, which also involved anti-steering, to justify its anti-steering provisions.

Both are distinguishable. In *Amex*, American Express prohibited merchants from dissuading customers from using Amex cards as a way of avoiding its merchant fees. *Id.* at 2283. It did so because merchants would often advertise Amex acceptance to attract users who used American Express’s rewards program, but then would steer them towards cards with lower merchant fees, such as Visa or Mastercard. *Id.* at 2289. The Court found that this was not anticompetitive because there was strong evidence of procompetitive effects (as discussed above) and “[p]erhaps most importantly, antisteering provisions *do not prevent Visa, MasterCard, or Discover from competing against Amex* by offering lower merchant fees or promoting their broader merchant acceptance.” *Id.* at 2289–90 (emphasis supplied).

Here, the information base is distinctly different. In retail brick-and-mortar stores, consumers do not lack knowledge of options. Technology platforms differ. Apple created a new and innovative platform which was also a black box. It enforced silence to control information and actively impede users from obtaining the knowledge to obtain digital goods on other platforms. Thus, the closer analogy is not American Express’ prohibiting steering towards Visa or Mastercard but a prohibition on letting users know that these options exist in the first place. Apple’s market power and resultant ability to control how pricing works for digital transactions, and related access to digital products, distinguishes it from the challenged practices in *Amex*. The same would extend to the Nordstrom/Macy’s analogy.⁶⁴¹ Apple has not offered any

⁶³⁹ *E.g.*, Trial Tr. (Simon) 365:3–367:5; Trial Tr. (Evans) 1715:11–16.

⁶⁴⁰ *See* Trial Tr. (Schiller) 2821:8–20 (explaining that the “key idea” of anti-steering outside the App Store is to prevent “targeting this individual user who really is being acquired from the App Store”).

⁶⁴¹ Best Buy may not be the traditional “brick-and-mortar” analogy as the Court previously footnoted and Mr. Cook, ironically, referenced. According to news reports, in order for Best Buy to compete with the likes of Amazon, and not just be a place where consumers physically test product but buy them more cheaply elsewhere, the company pivoted. It appears Best Buy actually rents square footage to companies like Apple and Samsung for “branded space” where they sell their own products and provide Best Buy not only with a revenue stream but the foot traffic to compete on other products. *Compare* Trial Tr. (Cook) 3864:24–3865:3 with Justin Bariso, Amazon Almost Killed Best Buy. Then, Best Buy Did Something Completely Brilliant, Inc., June 24, 2021, <https://www.inc.com/justin-bariso/amazon-almost-killed-best-buy-then-best-buy-did-something-completely->

justification for the actions other than to argue entitlement. Where its actions harm competition and result in supracompetitive pricing and profits, Apple is wrong. Accordingly, the harm from the anti-steering provisions outweighs its benefits, and the provision violates the UCL under the balancing test.

D. Remedies

“[T]he primary form of relief available under the UCL to protect consumers from unfair business practices is an injunction.” *In re Tobacco II Cases*, 46 Cal. 4th 298, 319 (2009). A private party seeking injunctive relief under the UCL may request “public injunctive relief,” *McGill v. Citibank, N.A.*, 2 Cal. 5th 945, 954 (2017), which is “relief that by and large benefits the general public and that benefits the plaintiff, if at all, only incidentally and/or as a member of the general public,” *id.* at 955 (simplified). “[F]ederal courts must apply equitable principles derived from federal common law to claims for equitable [relief] under California’s Unfair Competition Law[.]” *Sonner v. Premier Nutrition Corp.*, 971 F.3d 834, 837 (9th Cir. 2020). This means that, “even if a state authorizes its courts to provide equitable relief when an adequate legal remedy exists, such relief may be unavailable in federal court because equitable remedies are subject to traditional equitable principles unaffected by state law.” *Id.* at 841 (citation omitted).

Accordingly, under *Sonner*, a plaintiff seeking equitable relief under the UCL in federal court must demonstrate: “(1) that it has suffered an irreparable injury; (2) that remedies available at law, such as monetary damages, are inadequate to compensate for that injury; (3) that, considering the balance of hardships between the plaintiff and defendant, a remedy in equity is warranted; and (4) that the public interest would not be disserved by a permanent injunction.” *eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388, 391 (2006).

Based on the reasoning discussed above, the Court finds the elements for equitable relief are satisfied. While Apple’s conduct does not fall within the confines of traditional antitrust law, the conduct falls within the purview of an incipient antitrust violation with particular anticompetitive practices which have not been justified. Apple contractually enforces silence, in the form of anti-steering provisions, and gains a competitive advantage. Moreover, it hides information for consumer choice which is not easily remedied with money damages. The injury has occurred and continues and can best be remedied by invalidating the offending provisions. In terms of balancing, Apple’s business justifications focus on other parts of the Apple ecosystem and will not be significantly impacted by the increase of information to and choice for consumers. Rather, this limited measure balances the justification for maintaining a cohesive ecosystem with the public interest in unclinking the veil hiding pricing information on mobile devices and bringing transparency to the marketplace.

brilliant.htmlhttps://www.inc.com/justin-bariso/amazon-almost-killed-best-buy-then-best-buy-did-something-completely-brilliant.html. Thus, there is no need to put a sign inside Best Buy as Apple’s store is already there.

While the Court has defined the relevant market for antitrust purposes as the market for mobile gaming transactions, UCL jurisprudence does not require that the Court import that market limitation. The Court cannot discern any principled reason for eliminating the anti-steering provisions to mobile gaming only. The lack of information and transparency extends to all apps, not just gaming apps.

Apple argues that any equitable relief issued “under state law,” presumably including under the UCL, must be “limited to California” to avoid a violation of the Commerce Clause. The only authority that Apple cites to support this proposition is *Healy v. Beer Inst., Inc.*, 491 U.S. 324, 336 (1989), which holds that “[t]he Commerce Clause precludes the application of a state statute to commerce that takes place wholly outside of the State’s borders, whether or not the commerce has effects within the State.”⁶⁴²

In *Healy*, an association of brewers and importers of beer sought declaratory judgment that a Connecticut statute was unconstitutional because it regulated out-of-state conduct in violation of the Commerce Clause. *Healy*, 491 U.S. at 326. The statute in question required out-of-state shippers of beer to affirm that their prices for beer sold to Connecticut wholesalers were no higher than prices at which those products were sold in bordering states. *Id.* at 326–27. The Supreme Court held that the Connecticut statute violated the Commerce Clause because the interaction of the Connecticut statute with beer-pricing statutes of bordering states had the “practical effect” of controlling prices “wholly outside” of Connecticut’s borders. *Id.* at 336–37.

Healy is inapposite. Here, in contrast to *Healy*, there is no challenge to the constitutionality of the UCL. Rather than seeking to invalidate the UCL on the basis that it violates the Commerce Clause, Apple seeks to restrict the geographic scope of any injunction issued under the UCL to California based on the Commerce Clause. The proper scope of an injunction issued under state law is not an issue that was addressed in *Healy*. Further, even if *Healy* had any relevance to that issue, *Healy*’s holding that a state statute cannot be applied “to commerce that takes place wholly outside” of that state would nevertheless be inapposite. Here, neither the conduct at issue, nor its effects, are taking place “wholly outside” of California. Apple is headquartered in California; the DPLA is governed by California law; and the commerce affected by the conduct that the Court has found to be unfair takes place at least in part in California. Accordingly, Apple has not shown that *Healy* prevents the Court from enjoining conduct outside of California that undisputedly harms California and its residents. *See RLH Indus., Inc. v. SBC Commc’ns, Inc.*, 133 Cal. App. 4th 1277, 1291–93 (2005) (holding that “the commerce clause, even as construed in *Healy*, does not necessarily prohibit state antitrust and unfair competition law from reaching out-of-state anticompetitive practices injuring state residents”).

By the same token, Epic Games provides the Court with no authority that an injunction could issue globally based upon a violation of California’s UCL.

⁶⁴² *See* Apple COL ¶¶ 739–740.

Accordingly, a nationwide injunction shall issue enjoining Apple from prohibiting developers to include in their:

Apps and their metadata buttons, external links, or other calls to action that direct customers to purchasing mechanisms, in addition to IAP.

Nor may Apple prohibit developers from:

Communicating with customers through points of contact obtained voluntarily from customers through account registration within the app.

VII. APPLE’S COUNTERCLAIMS

Apple asserts counterclaims against Epic Games that arise out of Epic Games’ breach of the DPLA, including (1) breach of contract; (2) breach of the implied covenant of good faith and fair dealing; (3) unjust enrichment; (4) indemnification; and (5) declaratory judgment.⁶⁴³ These counterclaims are based on Epic Games’ covert implementation of the hotfix in *Fortnite* and its failure to pay Apple its commission on in-app purchases through *Fortnite*. Apple alleges that these acts breached the DPLA provisions requiring developers (i) not to “hide, misrepresent or obscure any features, content, services or functionality” in their apps⁶⁴⁴ and not to “provide, unlock or enable additional features or functionality through distribution mechanisms other than the App Store”⁶⁴⁵; and (ii) to pay Apple “a commission equal to thirty percent (30%) of all prices payable by each end-user” through the App Store.⁶⁴⁶

Plaintiff has admitted that it breached the DPLA in the manner that Apple alleges, and that Apple is entitled to relief on its counterclaim for breach of contract to the extent that the Court finds that the DPLA is enforceable. Epic Games does not admit liability as to any other counterclaim.⁶⁴⁷

Pointing to its affirmative defenses, Epic Games contends that all of Apple’s counterclaims are barred notwithstanding its admitted breach of the DPLA because the DPLA

⁶⁴³ Apple asserted other counterclaims in its answer, Docket No. 66. Based on its proposed findings of fact and conclusions of law, the Court finds Apple has abandoned all counterclaims except those addressed herein. *See generally* Apple FOF and COL.

⁶⁴⁴ Apple’s Answer and Counterclaims ¶ 50 (citing DPLA § 6.1).

⁶⁴⁵ *Id.* (citing DPLA §§ 3.2, 3.3.2, 3.3.3, 3.3.25).

⁶⁴⁶ *Id.* (citing DPLA, Schedule 2, §§ 1.1(a), 3.4(a)).

⁶⁴⁷ *See* Docket No. 474.

provisions it breached are unenforceable (i) under the doctrine of illegality; (ii) because they are void as against public policy; and (iii) because they are unconscionable.⁶⁴⁸

The Court first considers whether any of the DPLA's provisions upon which Apple's counterclaims depend are unenforceable based on Epic Games' affirmative defenses, and if they are not, the Court next considers whether Apple has shown that it is entitled to relief on each of its counterclaims.

A. Epic Games' Affirmative Defenses

1. Doctrine of Illegality

"[T]he general rule [is] that the courts will deny relief to either party who has entered into an illegal contract or bargain which is against public policy." *Tri-Q, Inc. v. Sta-Hi Corp.*, 63 Cal. 2d 199, 216 (1965). "Where a contract has several distinct objects, of which one at least is lawful, and one at least is unlawful, in whole or in part, the contract is void as to the latter and valid as to the rest." Cal. Civ. Code § 1599. Thus, if the alleged "illegality is collateral to the main purpose of the contract, and the illegal provision can be extirpated from the contract by means of severance or restriction, then such severance and restriction are appropriate." *Marathon Entm't, Inc. v. Blasi*, 42 Cal. 4th 974, 996 (2008) (quotation marks omitted). "The burden ordinarily rests upon the party asserting the invalidity of the contract to show how and why it is unlawful." *Rock River Commc'ns, Inc. v. Universal Music Grp., Inc.*, 745 F.3d 343, 350 (9th Cir. 2014) (citation omitted).

Epic Games alleges that Apple's counterclaims are barred because "the contracts on which Apple's counterclaims are based" are "illegal and unenforceable" on the basis that they violate the Sherman Act, the Cartwright Act, and the UCL.⁶⁴⁹

As discussed above, the Court has found and concluded that no provision of the DPLA at issue in this action is unlawful under the Sherman Act or the Cartwright Act and only one unrelated provision under the UCL.

While the Court has found that evidence suggests Apple's 30% rate of commission appears inflated, and is potentially anticompetitive, Epic Games did not challenge the rate. Rather, Epic Games challenged the imposition of any commission whatsoever. Nor did plaintiff show either that the provision of the DPLA which required developers not to "provide, unlock or enable additional features or functionality through distribution mechanisms other than the App Store," was illegal or unenforceable or that it was forced to violate the agreement to bring this

⁶⁴⁸ Epic Games asserted other affirmative defenses in its answer, Docket No. 106. Based on its proposed findings of fact and conclusions of law, the Court finds Epic Games has abandoned all affirmative defenses except those addressed herein. *See generally* Epic Games FOFs.

⁶⁴⁹ *See* Epic Games' Answer to Counterclaims at 17 (affirmative defenses 1 and 2).

lawsuit.⁶⁵⁰ Accordingly, the Court finds and concludes that Apple’s counterclaims are not barred on the basis that they arise out of an illegal and unenforceable contract.

2. Void as Against Public Policy

“In general, a contract contrary to public policy will not be enforced.” *Kelton v. Stravinski*, 138 Cal. App. 4th 941, 949 (2006). A contract need not be contrary to a statute for it to be deemed contrary to public policy. *Altschul v. Sayble*, 83 Cal. App. 3d 153, 162 (1978) (“There is no requirement that a contract violate an express mandate of a statute before it may be declared void as contrary to public policy.”); *see also* Cal. Civ. Code § 1667(2) (“That is not lawful which is . . . contrary to the policy of express law, though not expressly prohibited.”).

“The authorities all agree that a contract is not void as against public policy unless it is injurious to the interests of the public as a whole or contravenes some established interest of society.” *Rosenberg v. Raskin*, 80 Cal. App. 2d 335, 338 (1947). “California has a settled public policy in favor of open competition.” *Kelton*, 138 Cal. App. 4th at 946. It also has a public policy of protecting consumers of goods and services. *See Margolin v. Shemaria*, 85 Cal. App. 4th 891, 901 (2000) (“Both legislative enactments and administrative regulations can be utilized to further this state’s public policy of protecting consumers in the marketplace of goods and services.”). “Where a contract has several distinct objects, of which one at least is lawful, and one at least is unlawful, in whole or in part, the contract is void as to the latter and valid as to the rest.” Cal. Civ. Code § 1599.

Plaintiff alleges that Apple’s counterclaims are barred in whole or in part because the contracts on which they are based “are void as against public policy pursuant to the antitrust laws and unfair competition laws[.]”⁶⁵¹ Epic Games contends that the DPLA violates “the public policy in favor of competitive markets” because it forecloses all alternative app stores and non-IAP payment solutions in the iOS app distribution market and iOS in-app payment solutions market, respectively; they facilitate the imposition of Apple’s supracompetitive 30% commission; and they were forced upon Epic Games through Apple’s exercise of its market power.⁶⁵²

The Court is not persuaded by Epic Games’ broad-brush argument that it should not be bound by certain portions of the agreement. The DPLA provisions related to the breaching conduct arising from Project Liberty were not found to be invalid. For the reasons discussed at length above, the Court has found and concluded that these DPLA provisions are not contrary to the interests of the public as a whole and do not contravene some established interest of society, in the context of competition or otherwise. Accordingly, the remaining DPLA provisions are not unenforceable on the basis that they violate public policy. *Rosenberg*, 80 Cal. App. 2d at 338

⁶⁵⁰ *Id.* (citing DPLA §§ 3.2, 3.3.2, 3.3.3, 3.3.25).

⁶⁵¹ *See* Epic Games’ Answer to Counterclaims at 17 (affirmative defense 3).

⁶⁵² *See* Epic Games FOF ¶ 547.

(“The authorities all agree that a contract is not void as against public policy unless it is injurious to the interests of the public as a whole or contravenes some established interest of society.”).

Even though the Court has found the anti-steering provisions to be unfair under the UCL, the result was a measured alternative to plaintiff’s overreach. These provisions can be severed while maintaining the provisions that require honesty to control the parties’ relations and the coding of apps. Epic Games never adequately explained its rush to the courthouse or the actual need for clandestine tactics. The marketing campaign appears to have resulted in indirect benefits but it does not provide a legal defense.

In light of the foregoing, the Court finds and concludes that Apple’s counterclaims are not barred based on Epic Games’ public policy affirmative defense.

3. *Unconscionability*

a. Legal Framework

“[A] contract or provision, even if consistent with the reasonable expectations of the parties, will be denied enforcement if, considered in its context, it is unduly oppressive or ‘unconscionable.’” *Graham v. Scissor-Tail, Inc.*, 28 Cal. 3d 807, 820 (1981).

“Unconscionability has generally been recognized to include an absence of meaningful choice on the part of one of the parties together with contract terms which are unreasonably favorable to the other party. Phrased another way, unconscionability has both a ‘procedural’ and a ‘substantive’ element. . . . [B]oth the procedural and substantive elements must be met before a contract or term will be deemed unconscionable. Both, however, need not be present to the same degree. A sliding scale is applied so that the more substantively oppressive the contract term, the less evidence of procedural unconscionability is required to come to the conclusion that the term is unenforceable, and vice versa.” *Lhotka v. Geographic Expeditions*, 181 Cal. App. 4th 816, 821 (2010) (internal quotation marks and citations omitted).

“Unconscionability analysis begins with an inquiry into whether the contract is one of adhesion. The term contract of adhesion signifies a standardized contract, which, imposed and drafted by the party of superior bargaining strength, relegates to the subscribing party only the opportunity to adhere to the contract or reject it.” *Armendariz v. Found. Health Psychcare Servs., Inc.*, 24 Cal. 4th 83, 113 (2000) (quotation marks and alterations omitted). “The procedural element of the unconscionability analysis concerns the manner in which the contract was negotiated and the circumstances of the parties at that time. The element focuses on oppression or surprise. Oppression arises from an inequality of bargaining power that results in no real negotiation and an absence of meaningful choice. Surprise is defined as the extent to which the supposedly agreed-upon terms of the bargain are hidden in the prolix printed form drafted by the party seeking to enforce the disputed terms.” *Gatton v. T-Mobile USA, Inc.*, 152 Cal. App. 4th 571, 581 (2007) (internal quotation marks and citations omitted)).

“The substantive element of the unconscionability analysis focuses on overly harsh or one-sided results,” *Gatton*, 152 Cal. App. 4th at 586, or “whether a contractual provision reallocates risks in an objectively unreasonable or unexpected manner,” *Lhotka*, 181 Cal. App. 4th at 821. Substantive unconscionability “traditionally involves contract terms that are so one-

sided as to ‘shock the conscience,’ or that impose harsh or oppressive terms.” *Wherry v. Award, Inc.*, 192 Cal. App. 4th 1242, 1248 (2011).

In California, “where a single contract provision is invalid, but the balance of the contract is lawful, the invalid provision is severed, and the balance of the contract is enforced.” *Kec v. Superior Court of Orange Cnty.*, 51 Cal. App. 5th 972, 974–75 (2020). For example, when a contract is held to be unconscionable, “the strong legislative and judicial preference is to sever the offending term and enforce the balance of the agreement.” *Lange v. Monster Energy Co.*, 46 Cal. App. 5th 436, 453 (2020) (quotation marks omitted); *see also* Cal. Civ. Code § 1670.5 (“If the court as a matter of law finds the contract or any clause of the contract to have been unconscionable at the time it was made the court may refuse to enforce the contract, or it may enforce the remainder of the contract without the unconscionable clause, or it may so limit the application of any unconscionable clause as to avoid any unconscionable result.”).

b. Analysis

Again, Epic Games alleges that Apple’s counterclaims are barred because “the contracts on which Apple’s counterclaims are based are unconscionable” on the basis that they are “are contrary to the antitrust laws and unfair competition laws[.]”⁶⁵³ Epic Games contends that the DPLA provisions upon which Apple’s counterclaims depend are (i) procedurally unconscionable because they are non-negotiable terms in contracts of adhesion, and (ii) are substantively unconscionable because “they foreclose all alternative app stores and non-IAP payment solutions in the iOS app distribution market and iOS in-app payment solutions market, respectively, and they facilitate the imposition of Apple’s supra-competitive 30% commission.”⁶⁵⁴

The Court finds and concludes that Epic Games has not shown that the DPLA is unconscionable. A contractual term is not unconscionable unless it is found to be *both* procedurally and substantively unconscionable. Here, the absence of substantive unconscionability is dispositive. A contractual term is not substantively unconscionable unless it so “one-sided so as to ‘shock the conscience,’” *Wherry*, 192 Cal. App. 4th at 1248. Based on the record before it, the Court cannot conclude that the DPLA meets that standard. Plaintiff’s response that the unconscionability stems from the violations of antitrust and unfair competition laws fails.⁶⁵⁵ Because the Court has found only one unrelated provision to violate the UCL, the Court cannot conclude that the remaining provisions are substantively unconscionable.

Epic Games points to no other evidence or authority based upon which the Court could find that the provisions at issue “shock the conscience.” These are billion and trillion dollar companies with a business dispute. Epic Games itself uses adhesion contracts. Plaintiff points to no authority in which a court has held that contractual provisions similar to the ones at issue, despite their longevity and relative ubiquity, are unenforceable on the ground that they are

⁶⁵³ *See* Epic Games’ Answer to Counterclaims at 17–18.

⁶⁵⁴ Epic Games FOF ¶ 192.

⁶⁵⁵ *See* Epic Games FOF ¶¶ 191–192.

unconscionable. The Court finds and concludes, therefore, that Apple’s counterclaims are not barred on the basis that they arise out of contractual terms that are unconscionable.

The Court now turns to the question of whether Apple is entitled to relief with respect to any counterclaim that is based on breaches to DPLA provisions other than the one stricken.

B. Breach of Contract

Under California law⁶⁵⁶, “the elements of a cause of action for breach of contract are (1) the existence of the contract, (2) plaintiff’s performance or excuse for nonperformance, (3) defendant’s breach, and (4) the resulting damages to the plaintiff.” *Oasis W. Realty, LLC v. Goldman*, 51 Cal. 4th 811, 821 (2011). To prove causation, a plaintiff must show “the breach was a substantial factor in causing the damages.” *US Ecology, Inc. v. California*, 129 Cal. App. 4th 887, 909 (2005).

Apple asserts a counterclaim against Epic Games for breach of contract arising out of Project Liberty. In particular, Epic Games’ actions violated the DPLA provisions (1) requiring developers not to “hide, misrepresent or obscure any features, content, services or functionality” in their apps⁶⁵⁷ and not to “provide, unlock or enable additional features or functionality through distribution mechanisms other than the App Store,”⁶⁵⁸; and (2) requiring Epic Games to pay Apple “a commission equal to thirty percent (30%) of all prices payable by each end-user” through the App Store.⁶⁵⁹

As noted, plaintiff has admitted that it breached the DPLA as Apple alleges and has conceded that, if the Court finds that the breached provisions of the DPLA are enforceable against Epic Games, then Apple would be entitled to relief as a result of the breach.⁶⁶⁰

Because Apple’s breach of contract claim is also premised on violations of DPLA provisions independent of the anti-steering provisions, the Court finds and concludes, in light of plaintiff’s admissions and concessions, that Epic Games has breached these provisions of the DPLA and that Apple is entitled to relief for these violation.

⁶⁵⁶ The parties agree that the DPLA is governed by California law. *See* Dkt. No. 276 at 99; *see also* PX-2619 (DPLA) § 14.10 (providing that the DPLA is “governed by and construed in accordance with the laws of the United States and the State of California”).

⁶⁵⁷ Dkt. No. 66 ¶ 50 (citing DPLA § 6.1).

⁶⁵⁸ *Id.* (citing DPLA §§ 3.2, 3.3.2, 3.3.3, 3.3.25).

⁶⁵⁹ *Id.* (citing DPLA, Schedule 2, §§ 1.1(a), 3.4(a)).

⁶⁶⁰ *See* Stipulation, Dkt. No. 474.

C. Breach of the Implied Covenant of Good Faith and Fair Dealing

“The covenant of good faith and fair dealing, implied by law in every contract, exists merely to prevent one contracting party from unfairly frustrating the other party’s right to receive the benefits of the agreement actually made.” *Durell*, 183 Cal. App. 4th at 1369 (emphasis and citation omitted). While “[a] breach of the implied covenant of good faith is a breach of the contract,” “breach of a specific provision of the contract is not . . . necessary to a claim for breach of the implied covenant of good faith and fair dealing.” *Thrifty Payless, Inc. v. The Americana at Brand, LLC*, 218 Cal. App. 4th 1230, 1244 (2013) (internal quotation marks and citation omitted).

“In California, the factual elements necessary to establish a breach of the covenant of good faith and fair dealing are: (1) the parties entered into a contract; (2) the plaintiff fulfilled his obligations under the contract; (3) any conditions precedent to the defendant’s performance occurred; (4) the defendant unfairly interfered with the plaintiff’s rights to receive the benefits of the contract; and (5) the plaintiff was harmed by the defendant’s conduct.” *Rosenfeld v. JPMorgan Chase Bank, N.A.*, 732 F. Supp. 2d 952, 968 (N.D. Cal. 2010) (citation omitted).

“In essence, the covenant is implied as a supplement to the express contractual covenants, to prevent a contracting party from engaging in conduct which (while not technically transgressing the express covenants) frustrates the other party’s rights to the benefits of the contract.” *Love v. Fire Ins. Exch.*, 221 Cal. App. 3d 1136, 1153 (1990) (emphasis in original). It exists to “prevent one contracting party from unfairly frustrating the other party’s right to receive the benefits of the agreement actually made. The covenant thus cannot be endowed with an existence independent of its contractual underpinnings. It cannot impose substantive duties or limits on the contracting parties beyond those incorporated in the specific terms of their agreement.” *Durell*, 183 Cal. App. 4th at 1369 (citations omitted) (emphasis in original). “If there exists a contractual relationship between the parties, . . . the implied covenant is limited to assuring compliance with the express terms of the contract, and cannot be extended to create obligations not contemplated in the contract.” *Racine & Laramie, Ltd. v. Dep’t of Parks & Recreation*, 11 Cal. App. 4th 1026, 1032 (1992).

Apple asserts a counterclaim against Epic Games for breach of the implied covenant of good faith and fair dealing. Apple contends that “[t]o the extent that any of Epic’s bad faith actions did not breach the express terms of the [DPLA], Epic Games frustrated Apple’s right to receive the benefits of the agreement actually made, including by publishing an update to *Fortnite* that circumvented payment of commissions to which Apple was contractually entitled, by violating the Guidelines, and by otherwise undermining Apple’s operation and maintenance of the App Store.”⁶⁶¹ Accordingly, Apple asserts this counterclaim in the alternative to its breach of contract claim.

⁶⁶¹ Dkt. No. 66 ¶ 60 (emphasis supplied).

Because the Court has found and concluded that Apple is entitled to relief on its breach-of-contract claim, the Court denies relief to Apple as to its alternative claim for breach of the implied covenant of good faith and fair dealing.

D. Unjust Enrichment

“[T]he elements for a claim of unjust enrichment” are “[1] receipt of a benefit and [2] unjust retention of the benefit at the expense of another.” *Lectrodryer v. SeoulBank*, 77 Cal. App. 4th 723, 726 (2000). “Under California law, unjust enrichment is an action in quasi-contract, and is not cognizable when there is a valid and enforceable contract between the parties.” *Cont’l Cas. Co. v. Enodis Corp.*, 417 F. App’x 668, 670 (9th Cir. 2011) (citation omitted). “The doctrine applies where plaintiffs, while having no enforceable contract, nonetheless have conferred a benefit on defendant which defendant has knowingly accepted under circumstances that make it inequitable for the defendant to retain the benefit without paying for its value.” *Hernandez v. Lopez*, 180 Cal. App. 4th 932, 938 (2009).

Apple asserts a counterclaim for unjust enrichment against plaintiff based on its alleged failure to pay Apple the agreed-upon 30% commission under the DPLA, but it asserts this counterclaim only “[i]n the alternative” to its claim for breach of contract. *See* Docket No. 66 ¶ 63.

Because the Court has found and concluded that Apple is entitled to relief on its claim for breach of contract, as discussed above, the Court denies relief to Apple as to its alternative claim for unjust enrichment.

E. Indemnification

Under California law, “[a]n indemnity agreement is to be interpreted according to the language and contents of the contract as well as the intention of the parties as indicated by the contract.” *Myers Bldg. Indus., Ltd. v. Interface Tech., Inc.*, 13 Cal. App. 4th 949, 968 (1993); *see also Herman Christensen & Sons, Inc. v. Paris Plastering Co.*, 61 Cal. App. 3d 237, 245 (1976) (where the parties “have expressly contracted with respect to the duty to indemnify, the extent of that duty must be determined from the contract and not by reliance on the independent doctrine of equitable indemnity” (quotation marks omitted)). Such agreements “are construed under the same rules that govern the interpretation of other contracts.” *Alki Partners, LP v. DB Fund Servs., LLC*, 4 Cal. App. 5th 574, 600 (2016).

Apple asserts a counterclaim against Epic Games for indemnification in the form of the recovery of its attorneys’ fees and costs of defending this litigation and pursuing its counterclaims. This counterclaim is based on Section 10 of the DPLA, which provides:

To the extent permitted by applicable law, You agree to indemnify and hold harmless, and upon Apple’s request, defend, Apple, its directors, officers, employees, independent contractors and agents (each an “Apple Indemnified Party”) from any and all claims, losses, liabilities, damages, taxes, expenses and costs, including without

limitation, attorneys’ fees and court costs . . . incurred by an Apple Indemnified Party and arising from or related to any of the following . . . : (i) Your breach of any certification, covenant, obligation, representation or warranty in this Agreement, including Schedule 2; . . . or (vi) Your use (including Your Authorized Developers’ use) of the Apple Software or services, Your Licensed Application Information, Pass Information, metadata, Your Authorized Test Units, Your Registered Devices, Your Covered Products, or Your development and distribution of any of the foregoing.⁶⁶²

Apple contends that it is entitled to indemnification from Epic Games under this indemnification provision because plaintiff’s lawsuit involves claims arising from or related to its breaches of its certifications, covenants, obligations, representations, or warranties under the DPLA, and its use of the Apple Software or services, its licensed application information, its covered products, and its development and distribution of the foregoing.

Epic Games counters that Apple is not entitled to indemnification under Section 10 because that section applies only to claims brought by third parties against Apple and not “claims between Epic and Apple,” and because the indemnification clause would be unconscionable to the extent that it is interpreted as covering intra-party disputes.⁶⁶³

The Court’s interpretation of the indemnification provision is guided by the following principles:

Generally, an indemnification provision allows one party to recover costs incurred defending actions by third parties, not attorney fees incurred in an action between the parties to the contract. Courts look to several indicators to distinguish third party indemnification provisions from provisions for the award of attorney fees incurred in litigation between the parties to the contract. The key indicator is an express reference to indemnification. *A clause that contains the words ‘indemnify’ and ‘hold harmless’ generally obligates the indemnitor to reimburse the indemnitee for any damages the indemnitee becomes obligated to pay third persons*—that is, it relates to third party claims, not attorney fees incurred in a breach of contract action between the parties to the indemnity agreement itself. Courts also examine the context in which the language appears. Generally, if the surrounding provisions describe third party liability, the clause will be construed as a standard third party indemnification provision. *The court will not infer that the parties intended an indemnification provision to cover attorney fees*

⁶⁶² PX-2619 ¶ 10.

⁶⁶³ Epic Games FOF ¶¶ 573, 578.

between the parties if the provision “does not specifically provide for attorney’s fees in an action on the contract[.]”

Alki Partners, 4 Cal. App. 5th at 600–01 (internal citations omitted) (emphasis supplied).

Here, the indemnification provision at issue contains the words “indemnify” and “hold harmless,” and the surrounding provisions describe third-party liability, which, under *Alki Partners*, suggests that any obligation by Epic Games to reimburse Apple would arise only in the context of third-party claims, and not claims between the two. Additionally, the provision does not specifically provide for attorneys’ fees and costs in an action on the contract between the parties to the contract, which also weighs against interpreting the provision at issue as covering Apple’s attorneys’ fees and costs in this action.

Apple argues that the indemnification provision *does* contain language specifically providing “for attorneys’ fees in an action on the contract” because the indemnification provision is “triggered” by Epic Games’ breach of the DPLA.⁶⁶⁴ The Court is not persuaded. For an indemnification provision to be interpreted as covering attorneys’ fees and costs in an action on a contract *between the parties*, there must be language in the contract that “reasonably can be interpreted as addressing the issue of an action *between the parties* on the contract.” *Alki*, 4 Cal. App. 5th at 601 (citation and internal quotation marks omitted) (emphasis supplied). For example, attorneys’ fees and costs are recoverable in an action between the parties where the indemnity provision includes “*express language for attorney’s fees incurred in enforcing [the] indemnity agreement.*” *Id.* at 602 (citations omitted) (emphasis supplied); *see also Baldwin Builders v. Coast Plastering Corp.*, 125 Cal. App. 4th 1339, 1342 (2005) (holding that an indemnity provision authorized the recovery of attorneys’ fees on an action on the contract between the parties because it included express language that “[s]ubcontractor shall pay all costs, including attorney’s fees, *incurred in enforcing this indemnity agreement*” (emphasis supplied)). No such express language is included in the indemnification provision at issue. In light of the absence of such express language, and in light of the terms used in the indemnification provision that suggest that it covers only third-party claims, as discussed in more detail above, the Court finds and concludes that Apple has not shown that it is entitled to recover attorneys’ fees and costs from Epic Games pursuant to Section 10 of the DPLA.

F. Declaratory Judgment

1. Legal Framework

“In a case of actual controversy within its jurisdiction . . . , any court of the United States, upon the filing of an appropriate pleading, may declare the rights and other legal relations of any interested party seeking such declaration, whether or not further relief is or could be sought. Any such declaration shall have the force and effect of a final judgment or decree and shall be reviewable as such.” 28 U.S.C. § 2201(a).

⁶⁶⁴ Apple FOF ¶ 841.

Courts have “substantial discretion in deciding whether to declare the rights of litigants” under the Declaratory Judgment Act. *MedImmune, Inc. v. Genentech, Inc.*, 549 U.S. 118, 136 (2007). This “substantial” discretion permits the Court to consider “equitable, prudential, and policy arguments” for or against the declaratory relief sought. *Id.* A “district court should avoid needless determination of state law issues,” “should discourage litigants from filing declaratory actions as a means of forum shopping,” and “should avoid duplicative litigation.” *Principal Life Ins. Co. v. Robinson*, 394 F.3d 665, 672 (9th Cir. 2005) (quotation marks omitted). Courts also consider “whether the declaratory action will settle all aspects of the controversy; whether the declaratory action will serve a useful purpose in clarifying the legal relations at issue; whether the declaratory action is being sought merely for the purposes of procedural fencing or to obtain a ‘res judicata’ advantage; or whether the use of a declaratory action will result in entanglement between the federal and state court systems.” *Gov’t Emps. Ins. Co. v. Dizol*, 133 F.3d 1220, 1225 n.5 (9th Cir. 1998). Essentially, the district court must “balance concerns of judicial administration, comity, and fairness to the litigants.” *Principal Life Ins. Co.*, 394 F.3d at 672 (quotation marks omitted).

2. Analysis

Apple seeks a declaratory judgment that: (a) the DPLA is valid, lawful, and enforceable contracts; (b) Apple’s termination of the DPLA with Epic Games was valid, lawful, and enforceable; (c) Apple has the contractual right to terminate the DPLA with any or all of Epic Games’ wholly owned subsidiaries, affiliates, and/or other entities under its control; and (d) Apple has the contractual right to terminate the DPLA with any or all of the Epic Affiliates for any reason or no reason upon 30 days written notice, or effective immediately for any “misleading fraudulent, improper, unlawful or dishonest act relating to” the DPLA. Docket No. 66 ¶ 88.

Epic Games contends that Apple is not entitled to the declaratory judgment it seeks on the basis that the challenged provisions of the DPLA are “unlawful” and that Apple’s termination of the DPLA as to Epic Games was “unlawful” retaliation.⁶⁶⁵ The parties have not litigated every aspect of the DPLA, and the Court has raised concerns about issues lacking a full evidentiary record. Thus, it is not inclined to make a broad pronouncement that the DPLA in its entirety is valid, lawful, and enforceable.

That said, with respect to the sections of the DPLA requiring developers not to “provide, unlock or enable additional features or functionality through distribution mechanisms other than the App Store,” DPLA §§ 3.2, 3.3.2, 3.3.3, 3.3.25, those have not been found to be unlawful under federal and state antitrust law or the UCL.

This case does not involve retaliation. Epic Games never showed why it had to breach its agreements to challenge the conduct litigated. Two parallel antitrust actions prove the contrary. Apple had contractual rights to act as it did. It merely enforced those rights as plaintiff’s own

⁶⁶⁵ Epic Games FOF ¶¶ 566–567.

internal documents show Epic Games expected. Accordingly, plaintiff's challenges to Apple's claim for declaratory relief fail as to the remaining requests.

G. Remedies

The relief to which Apple is entitled is that to which Epic Games stipulated in the event that the Court found it liable for breach of contract, namely:

(1) damages in an amount equal to (i) 30% of the \$12,167,719 in revenue Epic Games collected from users in the *Fortnite* app on iOS through Epic Direct Payment between August and October 2020, plus (ii) 30% of any such revenue Epic Games collected from November 1, 2020 through the date of judgment; and

(2) a declaration that (i) Apple's termination of the DPLA and the related agreements between Epic Games and Apple was valid, lawful, and enforceable, and (ii) Apple has the contractual right to terminate its DPLA with any or all of Epic Games' wholly owned subsidiaries, affiliates, and/or other entities under Epic Games' control at any time and at Apple's sole discretion.⁶⁶⁶

CONCLUSION

This trial highlighted that "big tech" encompasses many markets, including as relevant here, the submarket for mobile gaming transactions. This lucrative, \$100 billion, market has not been fully tapped and is ripe for economic exploitation. As a major player in the wider video gaming industry, Epic Games brought this lawsuit to challenge Apple's control over access to a considerable portion of this submarket for mobile gaming transactions. Ultimately, Epic Games overreached. As a consequence, the trial record was not as fulsome with respect to antitrust conduct in the relevant market as it could have been.

Thus, and in summary, the Court does not find that Apple is an antitrust monopolist in the submarket for mobile gaming transactions. However, it does find that Apple's conduct in enforcing anti-steering restrictions is anticompetitive. A remedy to eliminate those provisions is appropriate. This measured remedy will increase competition, increase transparency, increase consumer choice and information while preserving Apple's iOS ecosystem which has procompetitive justifications. Moreover, it does not require the Court to micromanage business operations which courts are not well-suited to do as the Supreme Court has appropriately recognized.

A separate judgment shall issue based on the findings of fact and conclusions of law set forth above, the Court will enter a separate permanent injunction barring the noted restraints.

For the reasons set forth herein, the Court finds in favor of Apple on all counts except with respect to violation of California's Unfair Competition law (Count Ten) and only partially

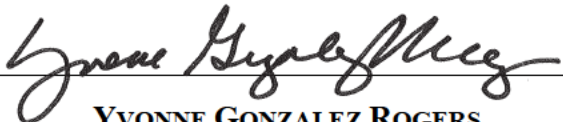
⁶⁶⁶ See Dkt. No. 474 ¶ 3.

with respect to its claim for Declaratory Relief. The preliminary injunction previously ordered is terminated.

Each party shall bear its own costs. No party shall file any post-trial motions based on previously-made arguments.

IT IS SO ORDERED.

Date: September 10, 2021


YVONNE GONZALEZ ROGERS
UNITED STATES DISTRICT COURT JUDGE

APPENDIX: ORDER OUTLINE

PART I **FINDINGS OF FACT**

I. The Parties

A. Overview

B. Plaintiff Epic Games

1. Gaming Software Developer: *Unreal Engine* and Epic Online Services
2. Game Developer: *Fortnite*
 - a. *Fortnite*'s Game Modes
 - b. Key Features of *Fortnite*
 - c. *Fortnite*'s Business Model: In-App Purchases and V-Bucks
 - d. *Fortnite* on the iOS Platform
3. Game Publisher and Distributor: Epic Games Store
 - a. Characteristics of the Epic Games Store
 - b. Finances of the Epic Games Store
4. Prior Relationship Between Apple and Epic Games
5. Project Liberty

C. Apple: Relevant History of the iOS and iOS Devices

1. The Early Years
2. Role of App Developers Generally and Epic Games
3. Apple's Contractual Agreements with Developers
 - a. Key Terms of the DPLA and App Guidelines
 - b. Apple's App Store as an App Transaction Platform
 - c. Apple's Commissions Rates: 30 percent; 15 percent; recent changes
4. Apple's Management of Apps – App Guidelines
5. App Store Operating Margins
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II. Review of Parties' Proposed Product Market and Finding

A. Epic Games: Facts Relevant to Foremarket for Apple's Own iOS

B. Epic Games: iOS App Distribution Aftermarket

1. Evidence of Switching Costs and Alleged "Lock-in"
 - a. Apple Documents
 - b. Dr. Susan Athey
 - c. Consumer Knowledge and Post Purchase Policy Changes
 - d. Apple's Rebuttal Evidence
2. Substitutes
 - a. Single Homing and *Fortnite* Data
 - b. Dr. Rossi and Dr. Evans
 - c. Mobile Devices (Tablets and the Switch)
 - d. Non-Mobile Devices (Consoles and PCs)
3. Gaming v. Non-Gaming and Apple's App Store

- C. Epic Games: Facts Relevant to iOS In-App Payment Processing Aftermarket
- D. Apple: Digital Video Game Market
 - 1. Defining a Video Game
 - 2. General Video Game Market
 - 3. Four Submarkets
 - a. Mobile Gaming
 - b. PC Gaming
 - c. Console Gaming
 - d. Cloud-Based Game Streaming
 - 4. Competition Among Platforms and Findings of Relevant Product Market
- E. Apple's Market Share

III. Proposed Geographic Market and Finding

IV. Market Power in Relevant Market

- A. Pricing
- B. Nature of Restrictions
- C. Operating Margins
- D. Barriers to Entry

V. Facts Regarding Alleged AntiCompetitive Effect

- A. Anticompetitive Effects: App Distribution Restrictions
 - 1. Effects
 - a. Foreclosure of Competition
 - b. Increased Consumer App Prices
 - c. Decreased Output
 - d. Decreased Innovation
 - e. Other Effects
 - 2. Business Justifications
 - a. Security, Privacy, and Reliability
 - i. "Narrow" Security: Malware
 - ii. "Broad" Security: Privacy, Quality, Trustworthiness
 - iii. Impact on Market
 - iv. Alternatives
 - b. Intellectual Property
- B. Anticompetitive Effects: In-App Payment Restrictions
 - 1. Effects
 - 2. Business Justifications
 - a. Security
 - b. Commission Collection
 - c. Value of the Intellectual Property
- C. Combined Effects

PART II
APPLICATION OF FACTS TO THE LAW AND CONCLUSIONS THEREON

- I. Relevant Product and Geographic Market
 - A. Legal Framework
 - B. Analysis
 - 1. Relevant Product Market
 - a. Apple’s Product Market Theory
 - i. Apps or Digital Game Transactions?
 - ii. All Gaming Transactions or Mobile Gaming Transactions?
 - b. Epic Games’ Approach: Foremarket/Aftermarket Market Definition
 - 2. Geographic Market
- II. Sections 1 and 2 of the Sherman Act (Counts 1, 3, 4, 5)
 - A. General Framework
 - B. Assessing Apple’s Market Power in the Relevant Product and Geographic Market
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 - C. Section 1 of the Sherman Act: Apple’s Unlawful Restraint of the iOS App Distribution Market (Count 3) and Unlawful Restraint on the iOS In-App Payment Solutions Market (Count 5)
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 - 2. Count 3: iOS App Distribution Market Analysis
 - a. Existence of an Agreement
 - b. Reasonableness of the Restraint
 - i. Anticompetitive Effects
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 - iii. Less Restrictive Alternatives
 - 3. Count 5: iOS In-App Payment Solutions Market Analysis
 - D. Section 2 of the Sherman Act: Apple’s Monopoly Maintenance of the iOS App Distribution Market (Count 1) and iOS in-App Payment Solutions Market (Count 4)
 - 1. Legal Framework
 - 2. Count 1: iOS App Distribution Market Analysis
 - 3. Count 4: iOS In-App Payment Solutions Market Analysis
- III. Section 1 of the Sherman Act: Tying Claim (Count 6)
 - A. Legal Standard
 - B. Analysis
- IV. California’s Cartwright Act (Counts 7, 8, and 9)
 - A. Legal Framework
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V. Section 2 of the Sherman Act: Apple’s Denial of an Essential Facility in the iOS app Distribution Market (Count 2)

VI. California’s Unfair Competition Law (Count 10)

- A. Standing
- B. “Unlawful” Practices
- C. “Unfair” Practices
 - 1. Tethering Test
 - 2. Balancing Test
- D. Remedies

VII. Apple’s Counterclaims

- A. Epic Games’ Affirmative Defenses
 - 1. Doctrine of Illegality
 - 2. Void as Against Public Policy
 - 3. Unconscionability
 - a. Legal Framework
 - b. Analysis
- B. Breach of Contract
- C. Breach of the Implied Covenant of Good Faith and Fair Dealing
- D. Unjust Enrichment
- E. Indemnification
- F. Declaratory Judgment
 - 1. Legal Framework
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- G. Remedies

EXHIBIT 6

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA

EPIC GAMES, INC.,
Plaintiff,
vs.

APPLE INC.,
Defendant.

Case No. 4:20-cv-05640-YGR
PERMANENT INJUNCTION

AND RELATED COUNTERCLAIM

The Court, having considered the evidence presented at the bench trial in this matter and consistent with its findings of fact and conclusions of law, **HEREBY ORDERS** as follows:

1. Apple Inc. and its officers, agents, servants, employees, and any person in active concert or participation with them (“Apple”), are hereby permanently restrained and enjoined from prohibiting developers from (i) including in their apps and their metadata buttons, external links, or other calls to action that direct customers to purchasing mechanisms, in addition to In-App Purchasing and (ii) communicating with customers through points of contact obtained voluntarily from customers through account registration within the app.

2. Any party may seek modification of this Order, at any time, by written motion and for good cause based on changed circumstances or otherwise.

3. The Court will retain jurisdiction over the enforcement and amendment of the injunction. If any part of this Order is violated by any party named herein or any other person, plaintiff may, by motion with notice to the attorneys for defendant, apply for sanctions or other relief that may be appropriate.

4. This injunction will take effect in ninety (90) days.

IT IS SO ORDERED.

Dated: September 10, 2021



YVONNE GONZALEZ ROGERS
UNITED STATES DISTRICT JUDGE

EXHIBIT 7

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA

EPIC GAMES, INC.,

Plaintiff, Counter-defendant

v.

APPLE INC.,

Defendant, Counterclaimant.

Case No. 4:20-cv-05640-YGR

**ORDER DENYING APPLE’S MOTION TO
STAY INJUNCTION PENDING APPEAL**

Dkt. No. 821

The Court is in receipt of Apple Inc.’s Motion to Stay part of the Court’s injunction pending resolution of all appeals, specifically that portion prohibiting developers from including “in their apps and their metabuttons, external links, or other calls to action that direct customers to purchasing mechanisms, in addition to In-App Purchasing [“IAP”].” (*See* Dkt. No. 821.)

Having considered all the filings, and oral argument, the Court finds Apple has failed to satisfy its burden, and the request as framed is **DENIED**. In short, Apple’s motion is based on a selective reading of this Court’s findings and ignores all of the findings which supported the injunction, namely incipient antitrust conduct including supercompetitive commission rates resulting in extraordinarily high operating margins and which have not been correlated to the value of its intellectual property. This incipient antitrust conduct is the result, in part, of the antisteering policies which Apple has enforced to harm competition. As a consequence, the motion is fundamentally flawed. Further, even if additional time was warranted to comply with the limited injunction, Apple did not request additional time other than ten days to appeal this ruling. Thus, the Court does not consider the option of additional time, other than the requested ten days.

The Court analyzes the motion using a four-factor test to determine whether a stay is appropriate, namely whether (i) the movant demonstrates a strong showing of likelihood of success on the merits; (ii) the movant would be irreparably injured absent a stay; (iii) issuance of

the stay will substantially injure the other parties interested in the proceeding; and (iv) an evaluation of where the public interest lies. *Nken v. Holder*, 556 U.S. 418, 426 (2009). Apple bears the burden of demonstrating that the Court should exercise its discretion to stay the injunction. *Id.* at 433-34.

In considering Apple’s likelihood of success on the merits, Apple notes that it will argue on appeal that the Court applied the wrong test in its analysis of California’s Unfair Competition Law (“UCL”), plaintiff lacked standing, and the injunction was not within the Court’s authority. Contrary to Apple’s assertions, the Court evaluated the UCL claims using two tests, not one. *See* Order at Law Sections VI.C.1 and 2. Furthermore, the Court’s Order analyzed the basis for Epic Game’s standing under the UCL. *See* Order at Law Section Law, VI. A. Moreover, Apple’s citations to Epic Games’ alleged loss of standing does not persuade.¹

Here, as noted, the antisteering provisions are one of the key provisions upon which Apple has been able to successfully charge supracompetitive commissions untethered to its intellectual property. *See* Order at Fact Sections IV and V. Evidence admitted at trial demonstrate that Epic Games and its related companies receive royalties from numerous companies who use the Unreal Engine for apps. *See e.g.* DX-4022. Apple’s commission rates depress those royalties and suppress competition in the industry generally, and in which Epic Games operates. This is sufficient to establish Article III standing. *See Franchise Tax. Bd. of California v. Alcan Aluminum Ltd.*, 493 U.S. 331, 336 (1990) (finding that parent company had Article III standing to

¹ Indeed, Apple relies on a handful of distinguishable cases that deal with whether the party initially had standing, not the loss of standing (mootness), in support of its proposition that Epic Games lacks standing to enforce the injunction. *See Lujan v. Defenders of Wildlife*, 504 U.S. 555, 564 (1992) (finding that environmental groups did not have standing to challenge regulation of the Secretary of the Interior which interpreted Section 7 of the Endangered Species Act, finding that plaintiff did not meet the imminent injury requirement for Article III because plaintiffs intent to “return to the places they had visited before” was not actual or imminent); *Davis v. FEC*, 554 U.S. 734-35 (2008) (finding that self-financed candidate had standing to challenge the constitutionality of the Millionaires’ Amendment of the Bipartisan Campaign Reform Act, noting that “the standing inquiry remains focused on whether the party invoking jurisdiction had the requisite stake in the outcome when the suit was filed”); *Hangarter v. Provident Life & Accident Ins. Co.*, 373 F.3d 998, 1021 (9th Cir. 2004) (finding that plaintiff did not have standing to seek injunction where plaintiff no longer had contractual relationship with defendant at the time of lawsuit).

1 challenge the taxes that their wholly owned subsidiaries were required to pay). Thus, this
2 argument fails.

3 Next, the Court addresses Apple's claim of irreparable injury. Again, the evidence does
4 not support Apple's position. Apple focuses part of its irreparable harm argument on harm that
5 could occur in the form of loss of trust and integrity in the iOS ecosystem by way of allowing
6 developers to include their links and metabuttons in their apps. Apple's arguments are
7 exaggerated. The reader rule, cross-play, and cross-wallet all reflect trial examples that
8 alternatives outside the app can be accommodated. Mr. Kosmynka's declaration does not change
9 the result. In most ways, he merely repeats arguments that the Court considered as part of its
10 Order. That the injunction may require additional engineering or guidelines is not evidence of
11 irreparable injury. Rather, at best, it only suggests that more time is needed to comply. Apple,
12 though, did not request additional time to comply. It wants an open-ended stay with no
13 requirement that it make any effort to comply. Time is not irreparable injury.

14 The third and fourth elements overlap so the Court addresses them collectively: injury to
15 other parties and public interest. The evidence from the trial revealed that the party who would
16 benefit primarily from a stay *pending all resolution of all appeals* is Apple. The Court can
17 envision numerous avenues for Apple to comply with the injunction and yet take steps to protect
18 users, to the extent that Apple genuinely believes that external links would create issues. The
19 Court is not convinced, but nor is it here to micromanage. Consumers are quite used to linking
20 from an app to a web browser. Other than, perhaps, needing time to establish Guidelines, Apple
21 has provided no credible reason for the Court to believe that the injunction would cause the
22 professed devastation. Links can be tested by App Review. Users can open browsers and retype
23 links to the same effect; it is merely inconvenient, which then, only works to the advantage of
24 Apple.²

25
26
27 ² The Court also notes that while Mr. Kosmynka claims that Apple verifies purchases.
28 Apple's Head of Pricing, Mr. Grey, testified at trial that Apple simply asks the developer to
confirm delivery and then it issues a receipt. Order, p. 117.

1 With respect to the alleged need for clarification because, anecdotally, some developers
2 may not understand the scope of the injunction, the parties themselves have not indicated any
3 confusion. The Developer Agreement prohibits third party in-app purchasing systems other than
4 Apple's IAP. The Court did not enjoin that provision but rather enjoined the prohibition to
5 communicate external alternatives and to allow links to those external sites. Apple still maintains
6 the convenience of IAP and, if it can compete on pricing, developers may opt to capitalize on that
7 convenience, including any reassurance that Apple provides to consumers that it may provide a safer
8 or better choice. The fact remains: it should be their choice. Consumer information, transparency,
9 and consumer choice is in the interest of the public.

10 The request for a ten-day extension to file an appeal to the Ninth Circuit is **DENIED**. Given
11 the promptness of this decision, more time remains before the injunction takes place than at least
12 two of those authorities upon which Apple relies for requesting such relief. *See Campbell v.*
13 *National Passenger Railroad Corp.*, No. 05-CV-5434, 2009 WL 4546673, at *2 (N.D. Cal. Nov.
14 30, 2009) (ordering that defendant comply with the injunction within 10 days from the date of the
15 Court's order on the motion to stay pending appeal); *see also Conservation Cong. v. U.S. Forest*
16 *Serv.*, No. CIV. S-11-2605 LKK, 2012 WL 3150307, at *2 (E.D. Cal. Aug. 1, 2012) (providing
17 twenty-one day extension to seek appeal). Here, the Court afforded Apple 90 days to comply and
18 it still has approximately 30 days before the injunction goes into effect. Thus, the Court sees no
19 need for an additional 10 days for Apple to file its appeal of this ruling. Granting this extension
20 would extend the deadline to the end of December just before the December holidays which itself
21 is inconvenient.

22 For the foregoing reasons, the Court **DENIES** Apple's motion to stay the injunction pending
23 appeal. The Court also **DENIES** Apple's request for a temporary stay of an additional 10 days.

24 This order terminates docket No. 821.

25 **IT IS SO ORDERED.**

26 Dated: November 9, 2021


27 
YVONNE GONZALEZ ROGERS
28 UNITED STATES DISTRICT JUDGE

EXHIBIT 8

UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT

FILED

DEC 8 2021

MOLLY C. DWYER, CLERK
U.S. COURT OF APPEALS

EPIC GAMES, INC.,

Plaintiff-counter-
defendant-Appellant,

v.

APPLE, INC.,

Defendant-counter-claimant-
Appellee.

No. 21-16506

D.C. No. 4:20-cv-05640-YGR
Northern District of California,
Oakland

ORDER

EPIC GAMES, INC.,

Plaintiff-counter-
defendant-Appellee,

v.

APPLE, INC.,

Defendant-counter-claimant-
Appellant.

No. 21-16695

D.C. No. 4:20-cv-05640-YGR

Before: O'SCANNLAIN, THOMAS, and TALLMAN, Circuit Judges.

Apple, Inc. ("Apple") has moved to stay, in part, the district court's September 10, 2021, permanent injunction pending appeal. Apple's motion (Dkt. Entry No. 19) is granted.

Apple has demonstrated, at minimum, that its appeal raises serious questions

on the merits of the district court’s determination that Epic Games, Inc. failed to show Apple’s conduct violated any antitrust laws but did show that the same conduct violated California’s Unfair Competition Law. *See City of San Jose v. Off. of the Com’r of Baseball*, 776 F.3d 686, 691–92 (9th Cir. 2015) (“[U]nder California law ‘[i]f the same conduct is alleged to be both an antitrust violation and an “unfair” business act or practice for the same reason—because it unreasonably restrains competition and harms consumers—the determination that the conduct is not an unreasonable restraint of trade necessarily implies that the conduct is not “unfair” toward consumers.’” (quoting *Chavez v. Whirlpool Corp.*, 113 Cal. Rptr. 2d 175, 184 (Cal. Ct. App. 2001))). Apple has also made a sufficient showing of irreparable harm, *see Disney Enters., Inc. v. VidAngel, Inc.*, 869 F.3d 848, 865–66 (9th Cir. 2017), and that the remaining factors weigh in favor of staying part (i) of the injunction and maintaining the status quo pending appeal, *see Nken v. Holder*, 556 U.S. 418, 434–35 (2009).

Therefore, we grant Apple’s motion to stay part (i) of paragraph (1) of the permanent injunction. The stay will remain in effect until the mandate issues in this appeal. The existing briefing schedule remains in place.

EXHIBIT 9

FOR PUBLICATION

**UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT**

EPIC GAMES, INC.,
*Plaintiff-counter-
defendant-Appellant,*

v.

APPLE, INC.,
*Defendant-counter-
claimant- Appellee.*

No. 21-16506

D.C. No.
4:20-cv-05640-
YGR

OPINION

EPIC GAMES, INC.,
*Plaintiff-counter-
defendant-Appellee,*

v.

APPLE, INC.,
*Defendant-counter-
claimant-Appellant.*

No. 21-16695

D.C. No.
4:20-cv-05640-
YGR

Appeal from the United States District Court
for the Northern District of California
Yvonne Gonzalez Rogers, District Judge, Presiding

Argued and Submitted November 14, 2022
San Francisco, California

Filed April 24, 2023

Before: SIDNEY R. THOMAS and MILAN D. SMITH,
JR., Circuit Judges, and MICHAEL J. MCSHANE,*
District Judge.

Opinion by Judge Milan D. Smith, Jr.;
Partial Concurrence and Partial Dissent by Judge S.R.
Thomas

SUMMARY**

Antitrust

The panel affirmed in part and reversed in part the district court's judgment, after a bench trial, against Epic Games, Inc., on its Sherman Act claims for restraint of trade, tying, and monopoly maintenance against Apple, Inc.; in favor of Epic on its claim under California's Unfair Competition Law; against Epic on Apple's claim for breach of contract; and against Apple on its claim for attorney fees. The panel affirmed except for the district court's ruling respecting attorney fees, where it reversed and remanded for further proceedings.

* The Honorable Michael J. McShane, United States District Judge for the District of Oregon, sitting by designation.

** This summary constitutes no part of the opinion of the court. It has been prepared by court staff for the convenience of the reader.

The panel explained that, when Apple opened the iPhone to third-party app developers, it created a “walled garden,” rather than an open ecosystem in which developers and users could transact freely without mediation from Apple. Epic alleged that Apple acted unlawfully by restricting app distribution on iOS devices to Apple’s App Store, requiring in-app purchases on iOS devices to use Apple’s in-app payment processor, and limiting the ability of app developers to communicate the availability of alternative payment options to iOS device users. These restrictions were imposed under the Developer Program Licensing Agreement (“DPLA”), which developers were required to sign in order to distribute apps to iOS users. The district court rejected Epic’s Sherman Act §§ 1 and 2 claims challenging the first and second restrictions, principally on the factual grounds that Epic failed to propose viable less restrictive alternatives to Apple’s restrictions. The district court concluded that the third restriction was unfair pursuant to the California UCL and enjoined Apple from enforcing it against any developer. The district court held that Epic breached its contract with Apple but was not obligated to pay Apple’s attorney fees.

On Epic’s appeal, the panel affirmed the district court’s denial of antitrust liability and its corresponding rejection of Epic’s illegality defense to Apple’s breach of contract counter-claim. The panel held that the district court erred as a matter of law in defining the relevant antitrust market and in holding that a non-negotiated contract of adhesion, such as the DPLA, falls outside the scope of Sherman Act § 1, but those errors were harmless. The panel held that, independent of the district court’s errors, Epic failed to establish, as a factual matter, its proposed market definition and the existence of any substantially less restrictive

alternative means for Apple to accomplish the procompetitive justifications supporting iOS's walled-garden ecosystem.

On Apple's cross-appeal, the panel affirmed as to the district court's UCL ruling in favor of Epic, holding that the district court did not clearly err in finding that Epic was injured, err as a matter of law when applying California's flexible liability standards, or abuse its discretion when fashioning equitable relief. Reversing in part, the panel held that the district court erred when it ruled that Apple was not entitled to attorney fees pursuant to the DPLA's indemnification provision.

Concurring in part and dissenting in part, Judge S.R. Thomas wrote that he fully agreed with the majority that the district court properly granted Epic injunctive relief on its California UCL claims. Judge S.R. Thomas also fully agreed that the district court properly rejected Epic's illegality defenses to the DPLA but that, contrary to the district court's decision, the DPLA did require Epic to pay attorney fees for its breach. On the federal claims, Judge S.R. Thomas also agreed that the district court erred in defining the relevant market and erred when it held that a non-negotiated contract of adhesion falls outside the scope of Sherman Act § 1. Unlike the majority, however, Judge S.R. Thomas would not conclude that these errors were harmless because they related to threshold analytical steps and affected Epic's substantial rights. He would remand for the district court to re-analyze the case using the proper threshold determination of the relevant market.

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OPINION

M. SMITH, Circuit Judge:

Epic Games, Inc. sued Apple, Inc. pursuant to the Sherman Act, 15 U.S.C. §§ 1–2, and California’s Unfair Competition Law (UCL), Cal. Bus. & Prof. Code § 17200 *et seq.* Epic contends that Apple acted unlawfully by restricting app distribution on iOS devices to Apple’s App Store, requiring in-app purchases on iOS devices to use Apple’s in-app payment processor, and limiting the ability of app developers to communicate the availability of alternative payment options to iOS device users. Apple counter-sued for breach of contract and indemnification for its attorney fees arising from this litigation.

After a sixteen-day bench trial involving dozens of witnesses and nine hundred exhibits, the district court rejected Epic’s Sherman Act claims challenging the first and second of the above restrictions—principally on the factual grounds that Epic failed to propose viable less restrictive alternatives to Apple’s restrictions. The court then concluded that the third restriction is unfair pursuant to the UCL and enjoined Apple from enforcing it against any developer. Finally, it held that Epic breached a contract with Apple but was not obligated to pay Apple’s attorney fees. Epic appeals the district court’s Sherman Act and breach of contract rulings; Apple cross-appeals the district court’s UCL and attorney fees rulings. We affirm the district court, except for its ruling respecting attorney fees, where we reverse and remand for further proceedings.

FACTUAL AND PROCEDURAL HISTORY

I. The Parties

Apple is a multi-trillion-dollar technology company that, of particular relevance here, sells desktop and laptop computers (Macs), smartphones (iPhones), and tablets (iPads). In 2007, Apple entered, and revolutionized, the smartphone market with the iPhone—offering consumers, through a then-novel multi-touch interface, access to email, the internet, and several preinstalled “native” apps that Apple had developed itself. Shortly after the iPhone’s debut, Apple decided to move on from its native-apps-only approach and open the iPhone’s (and later, the iPad’s) operating system (iOS) to third-party apps.¹

This approach created a “symbiotic” relationship: Apple provides app developers with a substantial consumer base, and Apple benefits from increased consumer appeal given the ever-expanding pool of iOS apps. Apple now has about a 15% market share in the global smartphone market with over 1 billion iPhone users, and there are over 30 million iOS app developers. Considering only video game apps, the number of iOS games has grown from 131 in the early days of the iPhone to over 300,000 by the time this case was brought to trial. These gaming apps generate an estimated \$100 billion in annual revenue.

Despite this general symbiosis, there is periodic friction between Apple and app developers. That is because Apple, when it opened the iPhone to third-party developers, did not

¹ The iPad has its own operating system (iPadOS) that is derived from iOS. For convenience, we use “iOS” to refer to both the iPhone and iPad’s operating systems and collectively refer to iPhones and iPads as “iOS devices.”

create an entirely open ecosystem in which developers and users could transact freely without any mediation. Instead, Apple created a “walled garden” in which Apple plays a significant curating role.² Developers can distribute their apps to iOS devices only through Apple’s App Store and after Apple has reviewed an app to ensure that it meets certain security, privacy, content, and reliability requirements. Developers are also required to use Apple’s in-app payment processor (IAP) for any purchases that occur within their apps. Subject to some exceptions, Apple collects a 30% commission on initial app purchases (downloading an app from the App Store) and subsequent in-app purchases (purchasing add-on content within an app).

Epic is a multi-billion-dollar video game company with three primary lines of business, each of which figures into various aspects of the parties’ appeals. First, Epic is a video game developer—best known for the immensely popular *Fortnite*, which has over 400 million users worldwide across gaming consoles, computers, smartphones, and tablets. Epic monetizes *Fortnite* using a “freemium” model: The game is free to download, but a user can purchase certain content within the game, ranging from game modes to cosmetic upgrades for the user’s character. *Fortnite* is also notable as one of the first major video games to feature “cross-play,” “cross-progression,” and “cross-wallet.” Cross-play permits users on different platforms to play with one another. Smartphone users, for example, can play against friends on gaming consoles. Cross-progression allows users to retain their in-game progress across every device they own. Users

² Many game consoles—including the Microsoft Xbox, Nintendo Switch, and Sony PlayStation—provide ecosystems that can similarly be labeled “walled gardens.”

can, for example, play *Fortnite* in the morning on their smartphones and then pick up with their progress saved on their gaming consoles in the evening. Cross-wallet allows users to spend *Fortnite*'s in-game currency on one device even if they purchased it on another. This cross-functionality gives the estimated 32 to 52% of *Fortnite* users who own multiple gaming devices flexibility regarding where and how they play as well as on which devices they make in-game purchases.

Second, Epic is the parent company of a gaming-software developer. Epic International (a Swiss subsidiary) licenses *Unreal Engine* to game developers. *Unreal Engine* offers developers a suite of tools to create three-dimensional content; in return, Epic International receives 5% of a licensee's gross revenue from a product developed using *Unreal Engine* after that product generates \$1,000,000 in revenue. Although *Unreal Engine* is not on Apple's App Store, Epic International does offer several complementary apps there. *Unreal Remote* and *Live Link Face*, for example, allow users to capture live-action footage and then view it on *Unreal Engine*. Thus, Epic—through its subsidiary—continues to be affected by the policies that govern the App Store.

Third, Epic is a video game publisher and distributor. It offers the Epic Games Store as a game-transaction platform on PC computers and Macs and seeks to do the same for iOS devices. As a distributor, Epic makes a game available for download on the Epic Games Store and covers the direct costs of distribution; in exchange, Epic receives a 12% commission—a below-cost commission that sacrifices short-term profitability to build market share. The Epic Games Store has over 180 million registered accounts and over 50 million monthly active users. Through the Epic

Games Store, Epic is a would-be competitor of Apple for iOS game distribution and a direct competitor when it comes to games that feature cross-platform functionality like *Fortnite*.

II. The Developer Program Licensing Agreement

Apple creates its walled-garden ecosystem through both technical and contractual means. To distribute apps to iOS users, a developer must pay a flat \$99 fee and execute the Developer Program Licensing Agreement (DPLA). The DPLA is a contract of adhesion; out of the millions of registered iOS developers, only a handful have convinced Apple to modify its terms.

By agreeing to the DPLA, developers unlock access to Apple's vast consumer base—the over 1 billion users that make up about 15% of global smartphone users. They also receive tools that facilitate the development of iOS apps, including advanced application-programming interfaces, beta software, and an app-testing software. In essence, Apple uses the DPLA to license its IP to developers in exchange for a \$99 fee and an ongoing 30% commission on developers' iOS revenue.

The DPLA contains the three provisions that give rise to this lawsuit and were mentioned in the introduction. First, developers can distribute iOS apps only through the App Store (the distribution restriction). Epic Games, for example, cannot make the Epic Games Store available as an iOS app and then offer *Fortnite* for download through that app. Second, developers must use Apple's IAP to process in-app payments (the IAP requirement). Both initial downloads (where an app is not free) and in-app payments are subject to a 30% commission. Third, developers cannot communicate out-of-app payment methods through certain

mechanisms such as in-app links (the anti-steering provision). “Apps and their metadata may not include buttons, external links, or other calls to action that direct customers to purchasing mechanisms other than [IAP].” Nor can developers use “points of contact obtained from account registration within the app (like email or text) [to] encourage users to use a purchasing method other than [IAP].”

III. Apple and Epic’s Business Relationship

In 2010, Epic agreed to the DPLA. Over the next few years, Epic released three games for iOS, each of which Apple promoted at major events. In 2015, however, Epic began objecting to Apple’s walled-garden approach. Epic’s CEO Tim Sweeney argued, in an email seeking a meeting with Apple senior leadership, that it “doesn’t seem tenable for Apple to be the sole arbiter of expression and commerce” for iOS users, and explained that Epic runs a competing game-transaction platform that it “would love to eventually” offer on iOS. Nothing came of this email, and Epic continued to offer games on iOS while complying with the DPLA’s terms. In 2018, Epic released *Fortnite* on iOS—amassing about 115 million iOS users.

In 2020, Epic renewed the DPLA with Apple but sought a “side letter” modifying its terms. In particular, Epic desired to offer iOS users alternatives for distribution (the Epic Games Store) and in-app payment processing (Epic Direct Pay). Apple flatly rejected this offer, stating: “We understand this might be in Epic’s financial interests, but Apple strongly believes these rules are vital to the health of the Apple platform and carry enormous benefits for both consumers and developers. The guiding principle of the App Store is to prove a safe, secure, and reliable experience for users”

Once Apple rejected its offer, Epic kicked into full gear an initiative called “Project Liberty”: a two-part plan it had been developing since 2019 to undermine Apple’s control over software distribution and payment processing on iOS devices, as well as Google’s influence over Android devices. Project Liberty coupled a media campaign against Apple and Google with a software update expressly designed to circumvent Apple’s IAP restriction. On the media-campaign side, Epic lowered the price of *Fortnite*’s in-app purchases on all platforms but Apple’s App Store and Google’s Google Play Store; it formed an advocacy group (the Coalition for App Fairness), tasking it with “generating continuous media . . . pressure” on Apple and Google; and it ran advertisements portraying Apple and Google as the “bad guys” standing in the way of Epic’s attempt to pass cost-savings onto consumers.

On the IAP-circumvention side, Epic submitted a *Fortnite* software update (which Epic calls a “hotfix”) to Apple for review containing undisclosed code that, once activated, would enable *Fortnite* users to make in-game purchases without using Apple’s IAP. Unaware of this undisclosed code, Apple approved the update and it was made available to iOS users. Shortly thereafter Epic activated the undisclosed code and opened its IAP alternative to users. That same day, Apple became aware of the hotfix and removed *Fortnite* from the App Store. Apple informed Epic that it had two weeks to cure its breaches of the DPLA, or otherwise Apple would terminate Epic Games’ developer account.

IV. Procedural History

A. Pre-Trial Proceedings

Only three days after Apple removed *Fortnite* from the App Store, Epic filed a 62-page complaint against Apple in the Northern District of California seeking a temporary restraining order (TRO) reinstating *Fortnite* and enjoining Apple from terminating Epic's iOS developer account.³ The district court granted Epic's prayer in part and denied in part—leaving *Fortnite* off the App Store but temporarily preventing Apple from taking any adverse action regarding Epic's developer account. After the TRO expired, Apple terminated Epic's developer account. The court then issued a preliminary injunction preventing Apple from terminating the developer accounts of Epic's subsidiaries (including Epic International) and scheduled a bench trial on an expedited basis, with trial beginning just about eight months after Epic filed its complaint.

Epic brought claims for permanent injunctive relief pursuant to the Sherman Act and the UCL. Epic's requested relief, though somewhat vague, would essentially convert iOS into an entirely open platform: Developers would be free to distribute apps through any means they wish and use any in-app payment processor they choose. Taken together, this relief would create a pathway for developers to bypass Apple's 30% commission altogether, though Epic made open-ended assurances at trial that its relief would allow

³ The same day, Epic filed a 60-page complaint against Google, challenging its policies regarding the Google Play Store on Android devices—*i.e.*, smartphones and tablets that use the main operating-system alternative to iOS. See Complaint for Injunctive Relief, *Epic Games, Inc. v. Google LLC*, No. 3:20-cv-05671 (filed Aug. 13, 2020 N.D. Cal.).

Apple to collect a commission—just not in the manner that the DPLA establishes. Apple brought counter-claims for breach of contract and indemnification for its attorney fees related to this litigation.⁴

B. The District Court’s Rule 52 Order

After a sixteen-day bench trial, the district court issued a 180-page order pursuant to Federal Rule 52 detailing its findings of facts and conclusions of law.

1. Market Definition

The district court began its analysis by defining the relevant market for Epic’s Sherman Act claims. Epic proposed two *single-brand* markets: the *aftermarkets* for iOS app distribution and iOS in-app payment solutions, derived from a *foremarket* for smartphone operating systems. Apple, by contrast, proposed the market for *all* video game transactions, whether those transactions occur on a smartphone, a gaming console, or elsewhere. The district court ultimately found a market between those the parties proposed: mobile-game transactions—*i.e.*, game transactions on iOS and Android smartphones and tablets. Compared to Epic’s proposed aftermarkets, the district court’s relevant market was both broader and narrower—broader in that it declined to focus exclusively on iOS, but narrower in that it considered only video game transactions instead of all app transactions. Compared to Apple’s proposed market, the district court’s relevant market was

⁴ We omit any discussion of the following claims that the parties asserted below but do not address before our court: (1) Epic’s Cartwright Act claims; (2) Apple’s counter-claim for breach of the implied covenant of good faith and fair dealing; and (3) Apple’s counter-claim for unjust enrichment.

narrower—excluding game-console and streaming-service transactions.

The district court rejected Epic’s proposed single-brand markets on several grounds. It held that there was no foremarket for smartphone and tablet operating systems because Apple does not license or sell iOS. More critically, it analyzed Epic’s aftermarkets in the alternative and found a failure of proof. Epic presented no evidence regarding whether consumers unknowingly lock themselves into Apple’s app-distribution and IAP restrictions when they buy iOS devices. A natural experiment facilitated by Apple’s removal of *Fortnite* from the App Store showed that iOS *Fortnite* users switched about 87% of their pre-removal iOS spending to other platforms—suggesting substitutability between the App Store and other game-transaction platforms. The district court also rejected Epic’s relevant market-definition expert as “weakly probative” and “more interested in a result [that] would assist his client than in providing any objective ground to assist the court in its decision-making” (cleaned up). Among other flaws, the expert’s analysis contradicted his own academic articles on how to analyze two-sided markets; used consumer-survey wording that departed from well-established market-definition principles; failed to account for holiday-season idiosyncrasies; and excluded minors (who are an important segment of mobile-game purchasers). The district court then turned to Apple’s proposed relevant market definition and refined it from *all* game transactions to *mobile* game transactions by relying extensively on the “practical indicia” of markets enumerated in the Supreme Court’s decision in *Brown Shoe v. United States*, 370 U.S. 294, 325 (1962).

2. Sherman Act Section 1: Restraint of Trade

The district court then rejected Epic’s Sherman Act Section 1 restraint-of-trade-claim. As a threshold matter, the court held that the DPLA was not a “contract[]” that fell within the scope of Section 1 because it was a “contract of adhesion,” not a truly bargained-for agreement. It then, in the alternative, applied the Rule of Reason—the antitrust liability standard applicable to most cases.

At step one of the Rule of Reason, the district court found that Epic proved substantial anticompetitive harms through both direct and indirect evidence. Apple has for years charged a supracompetitive commission on App Store transactions that it set “without regard” for competition. That commission, in turn, creates an “extraordinary high” operating margin of 75% for App Store transactions. Moreover, Apple has market power in the mobile-games-transactions market, evidenced by its 52 to 57% market share and barriers to entry in the form of network effects. Apple uses that market power to prevent would-be competitors like Epic from offering app-distribution and payment-processing alternatives, reducing innovation and Apple’s own investment in the App Store in the process.

At step two of the Rule of Reason, the district court found that Apple established non-pretextual, legally cognizable procompetitive rationales for its app-distribution and IAP restrictions. The district court credited Apple’s rationale that its restrictions seek to enhance consumer appeal and differentiate Apple products by improving iOS security and privacy. It also *partially* accepted Apple’s rationale that the restrictions are a means of being compensated for third-party developers’ use of its intellectual property—crediting it generally but rejecting it

“with respect to the [App Store’s] 30% commission rate specifically.”

At step three of the Rule of Reason, the district court rejected Epic’s proposed less restrictive alternatives (LRAs) as severely underdeveloped. As a purported LRA to Apple’s app-distribution restriction, Epic primarily advanced a “notarization model” based on Apple’s approach to security on the Mac operating system (macOS). On macOS, Apple does not mandate an exclusive distribution channel, as it does on iOS; nor does Apple condition distribution of an app on first submitting that app to Apple for review. But when a developer chooses to forego submitting an app to Apple, that app—regardless of how it is distributed to Mac users—will carry a warning that Apple has not scanned it for malware. Critically, the macOS notarization model does not contain a layer of human review as iOS app review does. Given this discrepancy, the district court found that such a model would not be as effective as Apple’s current model in achieving Apple’s security and privacy goals. It briefly considered whether Apple could close the gap by imposing a security and privacy floor on third-party app stores, but then noted that it is unclear whether doing so would comport with Epic’s requested injunctive relief. In any event, the court found that Epic failed to prove the notarization model would accomplish Apple’s IP-compensation rationale because Epic’s requested relief “leave[s] unclear whether Apple can collect licensing fee royalties and, if so, how it would do so.”

As a purported LRA for the IAP requirement, Epic proposed opening in-app payment processing to competing vendors. The district court again rejected the proposed LRA as not being as effective as Apple’s current model in accomplishing its security and privacy goals. More

fundamentally, there was little in the record showing how Epic envisioned Apple accomplishing its IP-compensation goal through the proposed LRA. Because the court upheld the app-distribution restriction, Apple would still be entitled to its 30% commission on in-app purchases within apps downloaded from the App Store. On its own initiative, the district court floated the idea of Apple permitting multiple in-app payment processors while reserving a right to audit developers to ensure compliance with the 30% commission. But it quickly rejected that as an alternative because it “would seemingly impose both increased monetary and time costs.”

3. Sherman Act Section 1: Tying

The district court rejected Epic’s Sherman Act claim that Apple ties in-app payment processing (IAP) to app distribution (the App Store). It did so on the grounds that neither of the purported separate products were actually separate. As a result, it did not decide which liability standard—*per se* condemnation or the Rule of Reason—would govern the arrangement’s lawfulness.

4. Sherman Act Section 2: Monopoly Maintenance

The district court also rejected Epic’s claim that Apple monopolized the market for mobile-games transactions. Though Apple has significant market power, the court found it to be insufficiently durable given the rapidly changing nature of the market. In any event, the court reiterated its Rule of Reason analysis to hold that Apple did not maintain its power through anticompetitive conduct.

5. Unfair Competition Law

The court then applied the UCL to Apple's anti-steering provision. The court found that Epic is sufficiently injured to seek injunctive relief because Epic is a competing games distributor and would earn additional revenue but for Apple's restrictions. On the merits, the court applied the competitor-suit "tethering test" and consumer-suit "balancing test" and found the anti-steering provision to be "unfair" pursuant to both. The court concluded that Epic satisfied all the requirements for injunctive relief and the nature of Epic's injury warranted an injunction preventing Apple from enforcing the provision against any developer.

6. Breach of Contract

Turning to Apple's counter-claims, the district found Epic liable for breach of the DPLA. Epic had stipulated that the Project Liberty hotfix breached the DPLA's IAP requirement, so the only dispute was whether Epic could prove that the contract was illegal, void as against public policy, or unconscionable. The district court rejected each of these affirmative defenses.

7. Attorney Fees

Finally, the district court rejected Apple's indemnification claim, which asserted Epic was obligated to pay its attorney fees incurred in this litigation. The DPLA provides that Epic "agree[s] to indemnify and hold harmless [Apple] . . . from any and all claims, losses, liabilities, damages, taxes, expenses and costs, including without limitation, attorneys' fees and court costs . . . , incurred by [Apple] and arising from or related to" Epic's "breach of any certification, covenant, obligation, representation or warranty in [the DPLA]." Applying a principle of California

contract law requiring a clear statement before finding an indemnification clause to apply to disputes between the parties themselves, the district court construed the provision as applicable only to third-party claims.

C. Post-Trial Proceedings

Following the handing down of the district court's order, the parties timely appealed and cross-appealed. Apple also moved to stay the UCL injunction pending appeal—arguing that Epic lacked standing in light of its developer account termination and that injunctive relief was inappropriate. The district court denied the motion and a panel of our court granted it in part.

JURISDICTION AND STANDARD OF REVIEW

We have jurisdiction pursuant to 28 U.S.C. § 1291. In an appeal following a bench trial, we review the district court's factual findings for clear error and its conclusions of law *de novo*. *Oakland Bulk & Oversized Terminal, LLC v. City of Oakland*, 960 F.3d 603, 612 (9th Cir. 2020). We specify the applicable standards of review throughout our opinion.

ANALYSIS

On appeal, Epic challenges the district court's Sherman Act and breach of contract rulings. We affirm the district court's denial of antitrust liability and its corresponding rejection of Epic's illegality defense to Apple's breach of contract counter-claim. Though the district court erred as a matter of law on several issues, those errors were harmless. Independent of the district court's errors, Epic failed to establish—as a factual matter—its proposed market definition and the existence of any substantially less restrictive alternative means for Apple to accomplish the

procompetitive justifications supporting iOS's walled-garden ecosystem.

On cross-appeal, Apple challenges the district court's UCL and attorney fees rulings. We affirm in part and reverse and remand in part. The district court did not clearly err in finding that Epic was injured, err as a matter of law when applying California's flexible liability standards, or abuse its discretion when fashioning equitable relief. The district court did, however, err when it held that Apple was not entitled to attorney fees pursuant to the DPLA's indemnification provision.

I. Market Definition

We begin with Epic's appeal. Epic argues that the district court incorrectly defined the relevant market for its antitrust claims to be mobile-game transactions instead of Epic's proposed aftermarkets of iOS app distribution and iOS in-app payment solutions. Epic contends both that the district court erred as a matter of law by requiring several threshold showings before finding a single-brand market and that, once those errors are corrected, the record compels the conclusion that Epic established its single-brand markets. We agree that the district court erred in certain aspects of its market-definition analysis but conclude that those errors were harmless. Despite some threshold errors, the district court proceeded to analyze Epic's evidence pursuant to the proper legal framework and did not clearly err in rejecting Epic's proposed relevant markets. In particular, Epic failed to produce any evidence showing—as our precedent requires—that consumers are generally unaware of Apple's app-distribution and IAP restrictions when they purchase iOS devices.

A. General Market-Definition Principles

The Sherman Act contains two principal prohibitions. Section 1 targets *concerted* action, rendering unlawful “every contract, combination . . . , or conspiracy, in restraint of trade.” 15 U.S.C. § 1. Section 2 targets *independent* action, making it unlawful to “monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce among the several States.” *Id.* § 2; see *Copperweld Corp. v. Indep. Tube Corp.*, 467 U.S. 752, 767 (1984) (“The Sherman Act contains a ‘basic distinction between concerted and independent action.’” (quoting *Monsanto Co. v. Spray-Rite Serv. Corp.*, 465 U.S. 752, 761 (1984))).⁵

There are two general categories of liability standards for Sherman Act claims. *Flaa v. Hollywood Foreign Press Ass’n*, 55 F.4th 680, 685 (9th Cir. 2022). “A small group of restraints are unreasonable *per se* because they ‘always or almost always tend to restrict competition and decrease output.’” *Id.* (quoting *Ohio v. Am. Express Co.* (“*Amex*”), 138 S. Ct. 2274, 2283 (2018)). When a *per se* prohibition applies, we deem a restraint unlawful without any “elaborate study of the industry” in which it occurs. *Id.* (quoting *Texaco Inc. v. Dagher*, 547 U.S. 1, 5 (2006)). Most

⁵ This concerted/independent distinction is somewhat imprecise because Section 2 also encompasses certain concerted action—*i.e.*, “conspiring with any other person or persons” to monopolize a market. See *Dreamstime.com, LLC v. Google LLC*, 54 F.4th 1130, 1137 (9th Cir. 2022) (“Section 2 of the Sherman Act prohibits concerted and independent action that ‘monopolize[s] or attempt[s] to monopolize.’”). However, because the distinction is a useful shorthand that is accurate in the mine-run of cases and used throughout the Supreme Court’s and our court’s decisions, we adopt it here as well.

restraints, however, are subject to the Rule of Reason: a multi-step, burden-shifting framework that “requires courts to conduct a fact-specific assessment” to determine a restraint’s “actual effect” on competition. *Amex*, 138 S. Ct. at 2284 (quoting *Copperweld*, 467 U.S. at 768).

The Rule of Reason applies “essentially the same” regardless of “whether the alleged antitrust violation involves concerted anticompetitive conduct under § 1 or independent anticompetitive conduct under § 2.” *FTC v. Qualcomm Inc.*, 969 F.3d 974, 991 (9th Cir. 2020); *see also Flaa*, 55 F.4th at 685 (“Because the legal tests for sections 1 and 2 of the Sherman Act similar, we can ‘review claims under each section simultaneously.’” (quoting *Qualcomm*, 969 F.3d at 991)).

In most, though not all, Rule of Reason cases, a “threshold step” is defining the relevant market in which the alleged restraint occurs. *Qualcomm*, 969 F.3d at 992; *see also Amex*, 138 S. Ct. at 2285 (“[C]ourts usually cannot properly apply the rule of reason without an accurate definition of the relevant market.”).⁶ Because Epic asserts

⁶ Despite dicta in *Qualcomm* suggesting the contrary, we have never held that a precise market definition is an absolute requirement “in any antitrust case.” *Qualcomm*, 969 F.3d at 992. We apply *per se* rules (e.g., the prohibition against price-fixing) without inquiring into market power. *See, e.g., Dagher*, 547 U.S. at 5 (*per se* rules require “no elaborate study of the industry”). Moreover, as the Supreme Court noted in *Amex*, it has previously applied the Rule of Reason—in its so-called “quick look” cases—without first defining the exact contours of the relevant market. 138 S. Ct. at 2285 n.7 (citing *FTC v. Ind. Fed’n of Dentists*, 476 U.S. 447 (1986), and *Catalano, Inc. v. Target Sales, Inc.*, 446 U.S. 643 (1980)); *see also* 1 Julian Von Kalinowski, Peter Sullivan & Maureen, *Antitrust Laws and Trade Regulation* § 12.01[3] (2022)

Rule of Reason claims and presented both direct and indirect evidence of Apple’s market power, we begin our analysis with market definition.

The relevant market for antitrust purposes is “the area of effective competition”—*i.e.*, “the arena within which significant substitution in consumption or production occurs.” *Amex*, 138 S. Ct. at 2285 (quoting Phillip E. Areeda & Herbert Hovenkamp, *Fundamentals of Antitrust Law* § 5.02 (4th ed. 2017)); *see also Image Tech. Servs., Inc. v. Eastman Kodak Co.*, 125 F.3d 1195, 1202 (9th Cir. 1997) (“The relevant market is the field in which meaningful competition is said to exist.”). A relevant market contains both a geographic component and a product or service component. *Hicks v. PGA Tour, Inc.*, 897 F.3d 1109, 1120 (9th Cir. 2018).

A market comprises “any grouping of sales whose sellers, if unified by a monopolist or a hypothetical cartel” could profitably raise prices above a competitive level. *Rebel Oil Co., Inc. v. Atl. Richfield Co.*, 51 F.3d 1421, 1434 (9th Cir. 1995). If the “sales of other producers [could] substantially constrain the price-increasing ability of the monopolist or hypothetical cartel, these other producers must be included in the market.” *Id.* To conduct this inquiry, courts must determine which products have a “‘reasonable interchangeability of use’ or sufficient ‘cross-elasticity of demand’” with each other. *Hicks*, 897 F.3d at 1120 (quoting *Brown Shoe*, 370 U.S. at 325); *see also United States v. E. I.*

(“Usually, the ‘quick look’ does not require a detailed analysis of the relevant market and market power.”); Phillip E. Areeda & Herbert Hovenkamp, *Antitrust Law* ¶ 1911a (4th ed. 2022) (“[D]ifferent applications of the rule of reason require different types and levels of inquiry.”).

du Pont de Nemours & Co., 351 U.S. 377, 400 (1956) (emphasizing “the responsiveness of the sales of one product to price changes of [another]”).

Often, this inquiry involves empirical evidence in the form of a “SSNIP” analysis. That analysis echoes *Rebel Oil* and uses past consumer-demand data and/or consumer-survey responses to determine whether a hypothetical monopolist could profitably impose a Small, Significant, Non-transitory Increase in Price above a competitive level. As we have previously summarized this analysis:

[A]n economist proposes a narrow geographic and product market definition and then iteratively expands that definition until a hypothetical monopolist in the proposed market would be able to profitably make a small but significant non-transitory increase in price (“SSNIP”). At each step, if consumers would respond to a SSNIP by making purchases outside the proposed market definition, thereby rendering the SSNIP unprofitable, then the proposed market definition is too narrow. At the next step, the economist expands the proposed geographic or product market definition to include the substituted products or area. This process is repeated until a SSNIP in the proposed market is predicted to be profitable for the hypothetical monopolist.

Optronic Techs., Inc. v. Ningbo Sunny Elec. Co., 20 F.4th 466, 482 n.1 (9th Cir. 2021). SSNIP analyses are relevant to

both Clayton Act merger challenges and Sherman Act restraint-of-trade or monopolization cases. *See id.* (Sherman Act section 2 monopolization claim); *Saint Alphonsus Med. Ctr.-Nampa Inc. v. St. Luke's Health Sys., Ltd.*, 778 F.3d 775, 783 (9th Cir. 2015) (Clayton Act section 7 merger challenge).⁷

Courts also consider several “practical indicia” that the Supreme Court highlighted in *Brown Shoe*: “[1] industry or public recognition of the [market] as a separate economic entity, [2] the product’s peculiar characteristics and uses, [3] unique production facilities, [4] distinct customers, [5] distinct prices, [6] sensitivity to price changes, and [7] specialized vendors.” *Brown Shoe*, 370 U.S. at 325; *Olin Corp. v. FTC*, 986 F.2d 1295, 1299 (9th Cir. 1993) (invoking *Brown Shoe* indicia); *see also* Areeda & Hovenkamp, *Antitrust Law, supra*, ¶ 533 (describing these indicia as having “evidentiary usefulness” in determining cross-elasticity of demand).

B. Single-Brand Aftermarkets

“[I]n some instances one brand of a product can constitute a separate market.” *Eastman Kodak Co. v. Image Tech. Servs., Inc.*, 504 U.S. 451, 482 (1992); *see also Newcal Indus., Inc. v. Ikon Office Sol.*, 513 F.3d 1038, 1048 (9th Cir.

⁷ Thus, to the extent the district court held that a SSNIP analysis applies only to merger challenges, it erred. However, because Sherman Act cases may involve markets in which a defendant has substantial market power or monopoly power (and has *already* exercised that power to charge a supracompetitive price), a SSNIP analysis in such cases “must not be used uncritically, and alternative indicia of market power should be explored.” Areeda & Hovenkamp, *Antitrust Law, supra*, ¶ 539. Otherwise, a court may risk a false negative: *over*-defining a market and finding no market power where, in fact, it does exist.

2008) (“[T]he law permits an antitrust claimant to restrict the relevant market to a single brand of the product at issue[.]”). More specifically, the relevant market for antitrust purposes can be an *aftermarket*—where demand for a good is entirely dependent on the prior purchase of a durable good in a *foremarket*.

In *Kodak*, the Supreme Court considered the question of whether a lack of market power in the foremarket (photocopier machines, generally) categorically precludes a finding of market power in the aftermarket (replacement parts for and servicing of Kodak-brand photocopiers), which Kodak had allegedly achieved by contractually limiting customers to Kodak-provided parts and services. 504 U.S. at 455, 466. The Supreme Court rejected Kodak’s invitation to impose an across-the-board rule because it was not convinced that the rule—which “rest[ed] on a factual assumption about the cross-elasticity of demand” in aftermarkets—would always hold true. *Id.* at 470. The Supreme Court thus folded aftermarkets into the framework for assessing markets generally, evaluating cross-elasticity of demand to determine whether a hypothetical monopolist could profitably charge a supracompetitive price. *See id.* at 469 (“The extent to which one market prevents exploitation of another market depends on the extent to which consumers will change their consumption of one product to a price change in another, *i.e.*, the ‘cross-elasticity of demand.’” (quoting *Du Pont*, 351 U.S. at 400)).

Explaining its skepticism of the factual assumption underlying *Kodak*’s proposed categorical rule, the Court reasoned that “significant” (1) information costs and (2) switching costs “could create a less responsive connection between aftermarket prices and [foremarket] sales,” particularly where the percentage of “sophisticated

purchasers” able to accurately life-cycle price is low. *Id.* at 473, 475; *see also id.* 477 n.24 (a “crucial” element is that the aftermarket restrictions were not “generally known” by foremarket consumers). That is, these conditions might “lock-in” unknowing customers such that competition in the foremarket cannot “discipline [competition in] the aftermarkets,” meaning a hypothetical monopolist could price its aftermarket products at a supracompetitive level without a substantial number of customers substituting to other products. *Id.* at 486; *see also* Von Kalinowski *et al.*, *supra*, § 24.02[5] (*Kodak* single-brand aftermarket requires “high switching costs,” “high information costs,” and “substantial” ability to “exploit ‘ignorant’ consumers”). Whether a plaintiff has proven such a lock-in must be resolved “on a case-by-case basis, focusing on the ‘particular facts disclosed by the record.’” *Kodak*, 504 U.S. at 467 (quoting *Maple Flooring Mfrs. Ass’n v. United States*, 268 U.S. 563, 579 (1925)).

In *Newcal*, we considered how to square *Kodak* with our prior holding in *Forsyth* that contractual obligations are generally “not a cognizable source of market power.” *Newcal*, 513 F.3d at 1047 (citing *Forsyth v. Humana, Inc.*, 114 F.3d 1467 (9th Cir. 2017)). We reasoned that the “critical distinction” between *Kodak*, on the one hand, and *Forsyth*, on the other, is that “the *Kodak* customers did not knowingly enter a contract that gave *Kodak* the exclusive right to prove parts and services for the life of the equipment.” *Id.* at 1048. Put otherwise, the “simple purchase of a *Kodak*-brand equipment” was not “functionally equivalent to the signing of a contractual agreement” limiting aftermarket choices. *Id.*; *see also id.* at 1049 (“[T]he law permits an inquiry into whether a consumer’s selection of a particular brand in the competitive

market is the functional equivalent of a contractual commitment, giving that brand an agreed-upon right to monopolize its consumers in an aftermarket.”). Kodak thus differed markedly from *Forsyth*, which involved medical-insurance policyholders who entered into insurance contracts with Humana knowing that certain hospitals would carry higher deductibles and co-payments than others. *See id.* at 1048–49.

Our knowledge-based distinction in *Newcal* flowed directly from the Supreme Court’s emphasis in *Kodak* on a defendant’s ability to use not “generally known” aftermarket restrictions to exploit unsophisticated consumers. *Kodak*, 504 U.S. at 477 n.24. And, as in *Kodak*, we made sure to emphasize that the aftermarket inquiry does not end as soon as a plaintiff checks the *Kodak*-based boxes related to consumer knowledge, information costs, and switching costs. “Even when a submarket is an *Eastman Kodak* market, though, it must bear the ‘practical indicia’ of an independent economic entity in order to qualify as a cognizable submarket under *Brown Shoe*.” *Newcal*, 513 F.3d at 1051.

In sum, to establish a single-brand aftermarket, a plaintiff must show: (1) the challenged aftermarket restrictions are “not generally known” when consumers make their foremarket purchase; (2) “significant” information costs prevent accurate life-cycle pricing; (3) “significant” monetary or non-monetary switching costs exist; and (4) general market-definition principles regarding cross-

elasticity of demand do not undermine the proposed single-brand market.⁸

C. Standard of Review

“We review relevant market definitions as fact findings reversible only if the evidence compels a conclusion contrary to the [factfinder’s] verdict.” *Optronic*, 20 F.4th at 482; *see also Saint Alphonsus*, 778 F.3d at 784 (finding “no clear error” in the district court’s market definition). Where a plaintiff asserts a *Kodak*-style single-brand aftermarket, it bears the burden of “rebut[ing] the economic presumption that . . . consumers make a knowing choice to restrict their aftermarket options when they decide in the initial (competitive) market to enter a[] . . . contract.” *Newcal*, 513 F.3d at 1050.

D. Epic’s Legal Challenges

With these principles in mind, we now turn to Epic’s arguments that the district court committed legal error when it (1) held a market can never be defined around a product that the defendant does not license or sell, (2) required lack of consumer awareness to establish a *Kodak*-style market, (3) purportedly required a change in policy to establish a *Kodak*-style market, and (4) required Epic to establish the “magnitude” of switching costs. We agree with Epic on its first argument and, to the extent the district court did impose

⁸ Epic and the district court interpret *Newcal* to impose a different four-part test. In doing so, they mistakenly rely on a portion of *Newcal* where we determined that the *specific* complaint before us plausibly alleged lack of consumer awareness such that it fell on the *Kodak* side of the *Kodak/Forsyth* divide. *See Newcal*, 513 F.3d at 1049 (“In determining whether this case is more like . . . *Forsyth* or more like *Eastman Kodak*, there are four relevant aspects of the complaint.”).

a change-in-policy requirement, Epic’s third argument. But we reject Epic’s second and fourth arguments as squarely foreclosed by *Kodak* and *Newcal*.⁹

1. Unlicensed or Unsold Product Markets

First, the district court erred by imposing a categorical rule that an antitrust market can *never* relate to a product that is not licensed or sold—here smartphone operating systems. To begin, this categorical rule flouts the Supreme Court’s instruction that courts should conduct market-definition inquiries based not on “formalistic distinctions” but on “actual market realities.” *Amex*, 138 S. Ct. at 2285 (quoting *Kodak*, 504 U.S. at 466–67).

Moreover, the district court’s rule is difficult to square with decisions defining a product market to include vertically integrated firms that self-provision the relevant product but make no outside sales. For example, the D.C. Circuit in *Microsoft* noted that “Apple had a not insignificant share of worldwide sales of operating systems,” even though Apple did not sell or license macOS but instead only included it in its own Mac computers. *United States v.*

⁹ We also reject Apple’s suggestion that Epic’s antitrust claims should have automatically failed as soon as the district court adopted a market of mobile-game transactions, instead of Epic’s proposed aftermarkets. None of the authorities Apple cites comes anywhere close to supporting its radical argument that, where parties offer dueling market definitions, the case immediately ends if the district court finds the record supports the defendant’s proposed market (or a third in-between market, as was the case here) rather than the plaintiff’s market. Instead, our precedent squarely forecloses such an argument. *See Rebel Oil*, 51 F.3d at 1421 (rejecting the plaintiff’s proposed market but stating that such a rejection was “not fatal” to its claim, and remanding to determine whether the defendant possessed market power in the defendant-proposed market that the court adopted).

Microsoft Corp., 253 F.3d 34, 73 (D.C. Cir. 2001). While the *Microsoft* court ultimately excluded macOS from its market, it did so on fact-bound substitutability grounds, not the categorical grounds that the district court used here. *Id.* at 52.

Finally, the district court’s rule overlooks that there may be markets where companies offer a product to one side of the market for free but profit in other ways, such as by collecting consumer data or generating ad revenue. *See, e.g., FTC v. Facebook, Inc.*, 581 F. Supp. 3d 34, 44–45, 55 (D.D.C. 2022) (finding FTC plausibly alleged a market of personal social networks even though “all [are] provided free of charge” to users). It puts form over substance to say that such products cannot form a market because they are not directly licensed or sold.

2. Lack of Consumer Knowledge

Second, the district court did not err when it required Epic to produce evidence regarding a lack of consumer knowledge of Apple’s app-distribution and IAP restrictions. Such a requirement comes directly from *Kodak* and *Newcal*. The former stated that it is “crucial” that aftermarket restrictions are not “generally known.” *Kodak*, 504 U.S. at 477 n.24. The latter placed the burden on a plaintiff to “rebut the economic presumption that . . . consumers make a knowing choice to restrict their aftermarket options” when they make a foremarket purchase. *Newcal*, 513 F.3d at 1050.¹⁰

¹⁰ As Epic correctly notes in its opening brief, *Kodak* does not impose a requirement that a plaintiff show “complete ignorance” of a defendant’s aftermarket restrictions; it need only show that the restrictions are not

3. Change in Policy

Third, Epic argues that the district court erred by holding that a plaintiff can establish a *Kodak*-style aftermarket only if it shows that the defendant adopted its aftermarket restrictions *after* some portion of consumers purchased their foremarket durable goods. Had the district court actually imposed such an absolute change-in-policy requirement, it would have erred. As explained above, *Kodak* and *Newcal* require a showing of a lack of consumer awareness regarding aftermarket restrictions. *Newcal*, 513 F.3d at 1050. A change in policy is of course *one* way of doing so; a consumer cannot knowingly agree to a restriction that did not exist at the time of the foremarket transaction. But it is not the *exclusive* means of doing so. Indeed, *Kodak* itself contemplated that some sophisticated, high-volume consumers would be able to accurately life-cycle price goods in the foremarket. *Kodak*, 504 U.S. at 476. Such life-cycle pricing would be impossible if those consumers were unaware that they would be restricted to certain vendors in the aftermarket.

But contrary to Epic’s assertion, we do not read the district court’s order as running counter to these principles. The district court explained that “other circuits have aligned with the contours of *Newcal* . . . regarding knowledge and/or post-purchase policy changes” and that the “breadth of antitrust law” requires that a restriction “must not have been sufficiently disclosed to consumers.” It then quoted the operative language from *Newcal* that focuses on lack of

“generally known.” *Kodak*, 504 U.S. at 477 n.24. We need not decide what amounts to “general[]” unawareness because Epic presented *no* evidence of consumer unawareness. *See infra* section I.E.

knowledge, not the necessity of a policy change. Finally, it examined the record to find neither a change in policy nor proof that iOS device purchasers are unaware of the distribution and IAP restrictions. *See infra* section I.E. The district court appropriately treated a change in policy as one, but not the exclusive, way of establishing *Kodak* and *Newcal*’s general-lack-of-knowledge requirement.

4. Significant Switching Costs

Fourth, the district court did not err when it required Epic to produce evidence about the *magnitude* of switching costs. *Kodak* explicitly requires that switching costs—whether monetary or non-monetary—be “significant.” *Kodak*, 504 U.S. at 473. This showing need not be extensive; among other things, a plaintiff can point to the “heavy initial outlay” of the foremarket good and brand-specific purchases. *Id.* at 477. By requiring such a showing, the district court was simply fulfilling its *Kodak* obligation of ensuring that switching costs are “significant.”¹¹

E. Epic’s Clear-Error Challenge

We now turn to the main thrust of Epic’s market-definition argument: that it is entitled, as a factual matter, to a finding in favor of its proposed aftermarkets. Though Epic attempts to avoid the clear-error label, its argument requires it to carry the heavy burden on appeal of showing that the district court clearly erred in finding that (1) Epic failed to show a lack of general consumer awareness regarding Apple’s restrictions on iOS distribution and payment processing, (2) Epic failed to show significant switching

¹¹ As explained in the following section, we express no view on whether the district court erred when applying this significance requirement to Epic’s proffered evidence regarding switching costs.

costs, and (3) the empirical evidence in the record and the *Brown Shoe* practical indicia support a market of mobile-game transactions, not Epic’s iOS-specific aftermarkets.¹²

Beginning with the first prong, Epic had the burden of showing a lack of consumer awareness—whether through a change in policy or otherwise. Epic identified a purported change in policy, contrasting the App Store’s now-immense profitability with a pre-launch statement from Steve Jobs that Apple did not “intend to make money off the App Store[’s]” 30% commission. The district court reasonably found this statement to simply reflect Jobs’s “initial expectation” about the App Store’s performance, not an announcement of Apple policy. Especially in light of the district court’s finding that Apple has “maintained the same general rules” for distribution and payment processing since the App Store’s early days, it did not clearly err in concluding that Epic failed to prove a lack of consumer awareness through a change of policy.

Nor did the district court clearly err in finding that Epic otherwise failed to establish a lack of awareness. Indeed, the district court squarely found: “[T]here is *no evidence* in the record demonstrating that consumers are unaware that the App Store is the sole means of digital distribution on the iOS platform” (emphasis added). And on appeal, Epic fails to cite any evidence that would undermine the district court’s characterization of the record.

Because of this failure of proof on the first prong of Epic’s *Kodak/Newcal* showing, we need not reach—and do

¹² The district court did not rule against Epic on the remaining prong of the *Kodak/Newcal* test: the presence of significant information costs that make accurate life-cycle pricing difficult.

not express any view regarding—the other factual grounds on which the district court rejected Epic’s single-brand markets: (1) that Epic did not show significant switching costs, and (2) that empirical evidence and the *Brown Shoe* factors rebut Epic’s proposed aftermarkets.

Moreover, the district court’s finding on *Kodak/Newcal*’s consumer-unawareness requirement renders harmless its rejection of Epic’s proposed aftermarkets on the legally erroneous basis that Apple does not license or sell iOS as a standalone product. *See supra* section I.D.1. To establish its single-brand aftermarkets, Epic bore the burden of “rebut[ing] the economic presumption that . . . consumers make a knowing choice to restrict their aftermarket options when they decide in the initial (competitive) market to enter a[] . . . contract.” *Newcal*, 513 F.3d at 1050. Yet the district court found that there was “no evidence in the record” that could support such a showing. As a result, Epic cannot establish its proposed aftermarkets on the record before our court—even after the district court’s erroneous reasoning is corrected.

In his partial dissent, our colleague, Judge Thomas, disagrees with our conclusion that the error discussed in section I.D.1 is harmless. First, Judge Thomas contends that we lack any “direct authority for [this] proposition.” While we do not have a *Kodak*-specific case to cite, treating an error as harmless in light of an independent and sufficient alternative finding is standard fare in appellate courts. *See, e.g., United States v. Wright*, 46 F.4th 938, 944 (9th Cir. 2022) (“[The district court’s . . . error was harmless in light of its alternative holding” (capitalization standardized)); *Tommasetti v. Astrue*, 533 F.3d 1035, 1042 (9th Cir. 2008) (“Although the ALJ’s step four determination constitutes error, it is harmless error in light

of the ALJ’s alternative finding at step five.”); *United States v. Koenig*, 912 F.2d 1190, 1190 (9th Cir. 1990) (“We agree [with the appellant’s assertion of error], but conclude that the district court made alternative rulings that render any error harmless.”). Second, and relatedly, Judge Thomas argues that our harmless-error conclusion runs counter to precedent instructing that, outside of certain exceptions, “courts usually cannot apply the rule of reason without an accurate definition of the relevant market.” *Amex*, 138 S. Ct. at 2285. But that argument misconstrues the effect of the district court’s finding on the consumer-unawareness prong. If, as Judge Thomas requests, we were to just correct the district court’s erroneous reasoning and then remand, the district court’s market definition on remand would be foreordained. Given the total lack of evidence on consumer-unawareness, Epic cannot establish its proposed aftermarkets. So, contrary to the partial dissent’s assertion, we do not proceed to apply the Sherman Act’s liability standards without first defining a relevant market. Epic’s proposed aftermarkets fail, and Apple did not cross-appeal the district court’s rejection of its proposed market. The district court’s middle-ground market of mobile-games transaction thus stands on appeal, and it is that market in which we assess whether Apple’s conduct is unlawful pursuant to the Sherman Act.

II. Sherman Act Section 1: Unreasonable Restraint

With the relevant market for Epic’s antitrust claims established (mobile-game transactions), we turn to the district court’s rejection of Epic’s Sherman Act Section 1 restraint-of-trade claim. Section 1 prohibits “[e]very contract, combination . . . , or conspiracy, in restraint of trade.” 15 U.S.C. § 1. Courts have long read Section 1 to “outlaw only *unreasonable* restraints.” *Amex*, 138 S. Ct. at

2283 (quoting *State Oil v. Khan*, 522 U.S. 3, 10 (1997)). Thus, a Section 1 inquiry has both a threshold component (whether there is a contract, combination, or conspiracy) and a merits component (whether it is unreasonable). *Qualcomm*, 969 F.3d at 988–89. While a restraint can be unreasonable *per se* or pursuant to the Rule of Reason, the parties agree that the latter standard applies here.

Epic contends that the district court (1) incorrectly found that the DPLA was not a “contract[]” within the scope of Section 1, (2) misapplied steps two and three of the Rule of Reason, and (3) omitted a fourth balancing step after it found that Epic failed to satisfy its step-three burden. Apple asserts—as an alternative basis for affirming the district court’s denial of Sherman Act liability—that the court erred at step one of the Rule of Reason. We agree with Epic on its first and third arguments but find the errors to be harmless; we reject Epic’s and Apple’s remaining arguments.

A. Existence of a Contract

The district court erred when it held that a non-negotiated contract of adhesion like the DPLA falls outside of the scope of Section 1. That holding plainly contradicts Section 1’s text, which reaches “[e]very contract, combination . . . , or conspiracy” that unreasonably restrains trade. 15 U.S.C. § 1 (emphasis added). To hold that a contract is exempt from antitrust scrutiny simply because one party “reluctant[ly]” accepted its terms “would be to read the word[] ‘contract’” out of the statute. *Systemcare, Inc. v. Wang Lab’ys Corp.*, 117 F.3d 1137, 1143 (10th Cir. 1997).

Moreover, the district court’s contract-of-adhesion exemption is difficult to square with numerous antitrust cases involving agreements in which one party set terms and

the other party reluctantly acquiesced. *See, e.g., Amex*, 138 S. ct. at 2282 (“Amex’s business model sometimes causes friction with merchants”); *Perma Life Mufflers, Inc. v. Int’l Parts Corp.*, 392 U.S. 134, 142 (1968) (the plaintiff “unwillingly complied with the restrictive . . . agreements”), *overruled on other grounds by Copperweld*, 467 U.S. 752; *Barry v. Blue Cross of Cal.*, 805 F.2d 866, 869 (9th Cir. 1986) (contract “terms and structure were made by” the defendant). Given the number of cases in which the district court’s exemption would have been decisive, it is telling that the dog never barked.

Additionally, as the district court itself recognized, its holding is “not particularly consistent” with ties being cognizable pursuant to Section 1. In a classic tie, the defendant “exploit[s] . . . its control over the tying product to force the buyer into the purchase of a tied product that the buyer either did not want at all, or might have preferred to purchase elsewhere on different terms.” *Jefferson Par. Hosp. Dist. No. 2 v. Hyde*, 466 U.S. 2, 12 (1984), *overruled on other grounds by Ill. Tool Works Inc. v. Indep. Ink, Inc.*, 547 U.S. 28 (2006). “If such conduct were to be labelled ‘independent,’ virtually all tying arrangements would be beyond the reach of Section 1.” *Image Tech. Serv., Inc. v. Eastman Kodak Co.*, 903 F.2d 612, 619 (9th Cir. 1990).

Moreover, Section 1 is primarily concerned with firms that exercise market power—*i.e.*, the “special ability . . . to force a [a contracting partner] to do something that he would not do in a competitive market.” *Jefferson Parish*, 466 U.S. at 13–14. The district court’s rule would preclude Section 1 suits and illegality defenses to breach of contract claims where they are most needed: when dealing with restraints

imposed by firms that have market power but lack the monopoly power that triggers Section 2 scrutiny.¹³

Thus, the district court erred on this threshold issue. But because the court, in the alternative, properly applied the Rule of Reason, its error was harmless.

B. Rule of Reason Step One: Anticompetitive Effects

The district court did not err when it found that Epic made the Rule of Reason’s required step-one showing. At step one, “the plaintiff has the initial burden to prove that the challenged restraint has a substantial anticompetitive effect that harms consumers in the relevant market.” *Amex*, 138 S. Ct. at 2284. Antitrust plaintiffs can make their step-one showing either “directly or indirectly.” *Id.*; accord *PLS.Com, LLC v. Nat’l Ass’n of Realtors*, 32 F.4th 824, 834 (9th Cir. 2022); *Aya Healthcare Servs., Inc. v. AMN Healthcare, Inc.*, 9 F.4th 1102, 1112 (9th Cir. 2021); *Rebel Oil.*, 51 F.3d at 1434.

¹³ The decisions that the district court relied on are readily distinguishable. An express agreement is “direct evidence of ‘concerted activity.’” *Paladin Assocs., Inc. v. Mont. Power Co.*, 328 F.3d 1145, 1153 (9th Cir. 2003). But the district court relied exclusively on cases in which there was *no* direct evidence of concerted activity and a plaintiff instead produced circumstantial evidence to show that the defendants were acting in concert. See, e.g., *Monsanto Co. v. Spray-Rite Serv. Corp.*, 465 U.S. 752 (1984). Where a plaintiff puts forward only circumstantial evidence, courts must conduct a searching inquiry, lest they mistake parallel conduct (which is legal) for concerted activity (which is subject to Section 1 scrutiny). *Id.* at 768; see *In re Musical Instruments & Equip. Antitrust Litig.*, 798 F.3d 1186, 1193–94 (9th Cir. 2015). Where there is an express contract, that concern is simply not present.

“To prove a substantial anticompetitive effect *directly*, the plaintiff must provide ‘proof of actual detrimental effects [on competition],’ such as reduced output, increased prices, or decreased quality in the relevant market.” *PLS.Com*, 32 F.4th at 834 (emphasis added) (quoting *Amex*, 138 S. Ct. at 2284). Importantly, showing a reduction in output is one form of direct evidence, but it “is not the only measure.” *O’Bannon v. NCAA*, 802 F.3d 1049, 1070 (2015) (emphasis removed) (quoting Areeda & Hovenkamp, *Antitrust Law*, *supra*, ¶ 1503b(1)).

To prove substantial anticompetitive effects *indirectly*, the plaintiff must prove that the defendant has market power and present “some evidence that the challenged restraint harms competition.” *Amex*, 138 S. Ct. at 2284. Market power is the ability for a defendant to profitably raise prices by restricting output. *Id.* at 2288; *see also Jefferson Parish*, 466 U.S. at 13–14 (market power is the ability “to force a purchaser to do something that he would not do in a competitive market”). In other words, a firm with market power is a price-maker, not the price-takers that economic theory expects in a competitive market. Pursuant to this indirect-evidence route, “[t]he existence of market power is a significant finding that casts an anticompetitive shadow over a party’s practices in a rule-of-reason case.” *Hahn v. Or. Physicians’ Serv.*, 868 F.2d 1022, 1026 (9th Cir. 1988).

Market power is generally inferred from the defendant’s possession of a high market share and the existence of “significant barriers to entry.” *Rebel Oil*, 51 F.3d at 1434. Whether a defendant possesses market power is a factual question that we review for clear error. *Cf. L.A. Land Co. v. Brunswick Corp.*, 6 F.3d 1422, 1425 (9th Cir. 1993) (possession of monopoly power is a fact question).

A plaintiff must also present “some evidence” that the defendant uses that market power to harm competition. *Amex*, 138 S. Ct. at 2284; *see also Aya Healthcare*, 9 F.4th at 1113 (citing *Tops Mkts., Inc. v. Quality Mkts., Inc.*, 142 F.3d 90, 97 (2d Cir. 1998), for the proposition that “market power alone does not suffice as indirect evidence for a rule-of-reason analysis”). This inquiry need not always be extensive or highly technical. It is sufficient that the plaintiff prove the defendant’s conduct, as matter of economic theory, harms competition—for example that it increases barriers to entry or reduces consumer choice by excluding would-be competitors that would offer differentiated products. *See N. Am. Soccer League, LLC v. U.S. Soccer Fed’n Inc.*, 883 F.3d 32, 42 (2d Cir. 2018).

Here, the district concluded that Epic produced both sufficient direct and indirect evidence to show that Apple’s distribution and IAP restrictions impose substantial anticompetitive effects. In terms of direct evidence, the court found that Apple has for years extracted a supracompetitive commission that was set “almost by accident” and “without regard” to its own costs and has produced “extraordinarily high” operating margins that “have exceeded 75% for years.” The court found that “the economic factors driving” other platforms’ rates “do not apply equally to Apple,” with “nothing other than legal action seem[ing] to motivate Apple to reconsider pricing and reduce rates.” With respect to indirect evidence, the district court found that Apple has market power: Apple had a mobile-games market share of 52 to 57% for the three years in evidence, and network effects and information restrictions create barriers to entry. The court found that Apple wielded that market power to foreclose would-be competitors like Epic from offering app-distribution and payment-processing

alternatives—reducing innovation and Apple’s own investment in the App Store in the process.

1. Direct Evidence

Apple challenges both the district court’s direct- and indirect-evidence conclusions on several grounds—some legal, some factual. We are not persuaded that the district court erred at step one of the Rule of Reason.¹⁴

First, Apple argues that the district court’s direct-evidence conclusion cannot stand because Epic did not show that Apple’s restrictions reduced output. We squarely rejected this argument in *O’Bannon*. There, the NCAA similarly argued that liability was foreclosed because output in the relevant market “increased steadily over time.” 802 F.3d at 1070. “Although output reductions are one common kind of anticompetitive effect in antitrust cases, a ‘reduction in output is not the *only* measure of anticompetitive effect.’” *Id.* (citation omitted). Nor does *Amex* displace our holding in *O’Bannon*. A showing of decreased output was essential in that case because the plaintiff “failed to offer any reliable measure of Amex’s transaction price or profit margins” and “the evidence about whether Amex charges more than its competitors was ultimately inconclusive.” *Amex*, 138 S. Ct. at 2288.

¹⁴ We also reject Apple’s threshold argument that the district court erred by not isolating the effects of Apple’s unilateral product-design decisions from the effects of the contractual restrictions that are properly within the scope of Section 1. This argument runs counter to the record. When conducting its Rule of Reason analysis, the district court noted that Epic “appear[ed] to disclaim any challenge to Apple’s code signing restrictions,” so the court “consider[ed] only the DPLA restrictions.”

Second, Apple argues that Epic’s evidence of supracompetitive pricing fails as a matter of law because Apple never raised its commission. A supracompetitive price is simply a “price[] above competitive levels.” *Rebel Oil*, 51 F.3d at 1434. Apple cites no binding precedent in support of its proposition that the charging of a supracompetitive price must always entail a price increase, though we recognize that it ordinarily does.

Third, Apple attacks the supracompetitive-pricing finding on factual grounds by asserting that Apple charges a substantially similar commission as its competitors. That assertion is true as far as *headline* rates go, but the district court reasonably based its supracompetitive-price finding on *effective* commission rates instead of headline rates. The district court found Apple’s reliance on headline rates to be “suspect” because, unlike the App Store, other platforms “frequently negotiate[] down” the rates they charge developers. The court noted that Amazon has a headline rate of 30% but an effective commission rate of 18%. And it credited testimony that game-console transaction platforms often “negotiate special deals for large developers.” While the district court’s finding that the Google Play Store (the App Store’s “main competitor”) charges a 30% rate seemingly undermines the characterization of Apple’s commission as supracompetitive, we cannot say that the district court clearly erred absent evidence about the Google Play Store’s effective commission—the metric that the district court at trial found to be the key to determining the competitiveness of a price in this market.

Fourth, Apple argues that the district court’s direct-evidence finding fails as a matter of law because *Amex* requires Epic to establish anticompetitive effects on both sides of the two-sided market for mobile-game transactions

(developers and users). Apple’s argument falls short both legally and factually. We have previously held: “*Amex* does not require a plaintiff to [show] harm to participants on both sides of the market. All *Amex* held is that to establish that a practice is anticompetitive in certain two-sided markets, the plaintiff must establish an anticompetitive impact on the ‘market as a whole.’” *PLS.com*, 32 F.4th at 839 (quoting *Amex*, 138 S. Ct. at 2287). In any event, the district court found that, while Apple’s restrictions “certainly impact developers,” there was “some evidence” that the restrictions also “impact[] consumers when those costs are passed on.”

2. Indirect Evidence

We are not persuaded by Apple’s argument that the district court erred in concluding that Epic established indirect evidence of anticompetitive effects. Apple does not take issue with the district court’s finding of a 52 to 55% market share (other than noting it was the court’s “own . . . calculation”); nor does Apple challenge the court’s barriers-to-entry finding. It instead argues that the finding that Apple wields its market power in an anticompetitive manner is speculative. But, supported by basic economic presumptions, the district court reasonably found that, without Apple’s restrictions, would-be competitors could offer iOS users alternatives that would differentiate themselves from the App Store on price as well as consumer-appeal features like searchability, security, privacy, and payment processing. Indeed, it found competition in the PC-gaming market to be a “vivid illustration”: Steam had long charged a 30% commission, but upon Epic’s entry into the market, it lowered its commission to 20%. Epic’s indirect-evidence showing was sufficient. *See N. Am. Soccer League*, 883 F.3d at 42 (market power combined with a

restriction that “reduce[s] consumer choice” satisfies step one).

C. Step Two: Procompetitive Rationales

The district court correctly held that Apple offered non-pretextual, legally cognizable procompetitive rationales for its app-distribution and IAP restrictions. If a plaintiff establishes at step one that the defendant’s restraints impose substantial anticompetitive effects, then the burden shifts back to the defendant to “show a procompetitive rationale for the restraint[s].” *NCAA v. Alston*, 141 S. Ct. 2141, 2160 (2021) (quoting *Amex*, 138 S. Ct. at 2284). A procompetitive rationale is “a [1] nonpretextual claim that [the defendant’s] conduct is [2] indeed a form of competition on the merits because it involves, for example, greater efficiency or enhanced consumer appeal.” *Qualcomm*, 969 F.3d at 991.

Here, the district court accepted two sets of rationales as non-pretextual and legally cognizable. First, it found that Apple implemented the restrictions to improve device security and user privacy—thereby enhancing consumer appeal and differentiating iOS devices and the App Store from those products’ respective competitors. Second, the court *partially* accepted Apple’s argument that it implemented the restrictions to be compensated for its IP investment. While the court credited the IP-compensation rationale generally, it rejected the rationale “with respect to the 30% commission rate specifically.” On appeal, Epic raises three arguments challenging Apple’s rationales as legally non-cognizable.

1. Partial Acceptance of Apple's IP-Compensation Rationale

Epic argues that the district court may not credit Apple's IP-compensation rationale while finding that the rationale was pretextual "with respect to the 30% commission rate *specifically*" (emphasis added). We have held that IP-compensation is a cognizable procompetitive rationale, *Kodak*, 125 F.3d at 1219 ("desire to profit from . . . intellectual property" is presumptively procompetitive), and we find no error in the district court's *partial* crediting of that rationale here.

The district court's acceptance of the rationale generally, while rejecting a specific application of it, resembles the district court's analysis in the NCAA litigation that culminated in *Alston*, 141 S. Ct. 2141. There, the district court credited the NCAA's amateurism-as-consumer-appeal rationale but found that the NCAA's "rules and restrictions on [amateurism] ha[d] shifted markedly over time," that the NCAA adopted some restrictions "without any reference to considerations of consumer demand," and that some were "not necessary to consumer demand." *Id.* at 2163. The court did not, as Epic requests here, resolve the case at step two and hold that the NCAA's shaky proof meant it lacked *any* procompetitive rationale. Instead, the "deficiencies in the NCAA's proof of procompetitive benefits at the second step influenced the analysis at the third [step]." *Id.* at 2162. Because the NCAA's amateurism-as-consumer-appeal rationale was nebulously defined and weakly substantiated, the plaintiffs had more flexibility at step three to fashion less restrictive alternatives.

The same is true here. Because the district court accepted only a general version of Apple's IP-compensation

rationale (that Apple was entitled to “*some* compensation”), Epic at step three needed only to fashion a less-restrictive alternative calibrated to achieving that general goal, instead of one achieving the level of compensation that Apple currently achieves through its 30% commission. There is no legal requirement—as Epic suggests—that district courts make pretext findings on an all-or-nothing basis. When district courts at step two partially credit a rationale, step three will necessarily take that partial finding into account.

2. Cognizability of Apple’s Privacy/Security Rationales

Epic and its *amici* next argue that Apple’s security and privacy rationales are *social*, not procompetitive, rationales and therefore fall outside the purview of antitrust law. We reject this argument.

To begin, Epic waived this argument by failing to raise it below. *See Friedman v. AARP, Inc.*, 855 F.3d 1047, 1057 (9th Cir. 2017) (“Our general rule is that we do not consider an issue not passed upon below.”). In the parties’ pre-trial joint submission on elements and remedies, Epic agreed that “enhancing consumer appeal”—the goal of Apple’s security and privacy efforts—is a cognizable procompetitive justification. At trial, one of Epic’s experts conceded that “[p]rotecting iPhone users from security threats is a procompetitive benefit.” And Epic made no reference to cognizability in its proposed findings of fact and conclusions of law.

Even setting aside Epic’s failure to raise this argument below, we are not persuaded by it. *See Carrillo v. County of Los Angeles*, 798 F.3d 1210, 1223 (9th Cir. 2015) (courts of appeal have discretion to address pure questions of law if doing so will not prejudice the opposing party). Epic’s

argument characterizes Apple as asserting security and privacy as independent justifications in and of themselves. But, throughout the record, Apple makes clear that by improving security and privacy features, it is tapping into consumer demand and differentiating its products from those of its competitors—goals that are plainly procompetitive rationales. *See, e.g., Qualcomm*, 969 F.3d at 991 (listing enhanced “consumer appeal” as a legitimate procompetitive rationale); *O’Bannon*, 802 F.3d at 1072–73 (considering the NCAA’s amateurism rationale that “plays a role in increasing consumer demand”). Consumer surveys in the record show that security and privacy is an important aspect of a device purchase for 50% to 62% of iPhone users and 76% to 89% of iPad users worldwide. Even Epic’s CEO testified that he purchased an iPhone over an Android smartphone in part because it offers “better security and privacy.” And the district court found that, because Apple creates a “trusted app environment, users make greater use of their devices.”

With Apple’s restrictions in place, users are free to decide which kind of app-transaction platform to use. Users who value security and privacy can select (by purchasing an iPhone) Apple’s closed platform and pay a marginally higher price for apps. Users who place a premium on low prices can (by purchasing an Android device) select one of the several open app-transaction platforms, which provide marginally less security and privacy. Apple’s restrictions create a heterogenous market for app-transaction platforms which, as a result, increases interbrand competition—the primary goal of antitrust law. *See, e.g., Leegin Creative Leather Prod., Inc. v. PSKS, Inc.*, 551 U.S. 877, 895 (2007);

State Oil, 522 U.S. at 15.¹⁵ Antitrust law assumes that competition best allocates resources by allowing firms to compete on “all elements of a bargain—quality, service, safety, and durability—and not just the immediate cost.” *Nat’l Soc’y of Pro. Eng’rs v. United States*, 435 U.S. 679, 695 (1978). If we were to accept Epic and its *amici*’s argument, then no defendant could cite competing on non-price features as a procompetitive rationale.

To avoid this conclusion, Epic and its *amici* rely on a line of cases stemming from *National Society of Professional Engineers*. But neither that case nor its progeny support their argument that improved quality is a social, rather than procompetitive, rationale. Instead, the *Professional Engineers* line of cases holds that a defendant cannot severely limit interbrand competition on the theory that *competition itself* is ill-suited to a certain market or industry. See *id.* at 694–96. Epic’s selection of quotes from *Professional Engineers* and other cases—without acknowledging the distinct context in which they occurred—is unconvincing.

In *Professional Engineers*, a professional association with about 12,000 engineers adopted a rule prohibiting its members from engaging in competitive bidding on

¹⁵ Epic argues that interbrand competition in the smartphone market is irrelevant because in the app-transactions market Epic is Apple’s would-be competitor—*i.e.*, the DPLA prevents interbrand competition between the App Store and the Epic Games Store in the game-transactions market. But this was also true in *Kodak*: The independent service operators were would-be competitors of Kodak in the service market. Still, the Court entertained (while ultimately rejecting on factual grounds) Kodak’s procompetitive rationale that its service restrictions ensured high-quality products and thus promoted interbrand competition in the foremarket for photocopiers. *Kodak*, 504 U.S. at 482–84.

construction projects. *Id.* at 681. This “absolute ban” on competitive bidding imposed substantial anticompetitive effects, and the Society’s sole justification was that competition in the construction-engineering market would lead engineers to perform “inferior work with consequent risk to safety and health.” *Id.* at 692–94. In other words, competition in the construction engineering industry was not in the “public benefit.” *Id.* The Supreme Court rejected this request for a judge-made exemption from the Rule of Reason, which “does not support a defense based on the assumption that competition itself is unreasonable,” and stated that the Society’s argument should be “addressed to Congress.” *Id.* at 696.

Indiana Federation of Dentists likewise involved a request for an exemption from the Rule of Reason. There, an association of dentists, which had a nearly 100% market share in one area and a nearly 70% market share in another, adopted a rule prohibiting its members from submitting x-rays to dental insurers. *Ind. Fed. of Dentists*, 476 U.S. at 448–49. The rule made it prohibitively expensive for insurers to impose cost-containment measures and thus eliminated interbrand competition regarding cooperation with patients’ insurers. *Id.* at 449. The Federation argued that competition would undermine “quality of care”—that, without the rule, consumers would make “unwise and even dangerous choices” regarding dental procedures. *Id.* at 463. The Supreme Court rejected this argument—that competition was ill-suited for the dental industry—as squarely foreclosed by *Professional Engineers*. *Id.*

Trial Lawyers Association followed a similar track, but with respect to a requested exemption from a *per se* rule. A professional association comprising about 90% of “regulars” appointed for indigent criminal defense in the Superior Court

of the District of Columbia entered into a group boycott against the District until it “substantially increase[d]” hourly rates. *FTC v. Sup. Ct. Trial Lawyers’ Ass’n*, 493 U.S. 411, 416 (1990). The Association argued that its actions were not unlawful because the District had a “constitutional duty” to provide adequate representation to indigent defendants, which required it to provide meaningful compensation to their attorneys. *Id.* at 423. The Court refused to exempt the Association’s conduct from the normal application of antitrust’s *per se* prohibition on group boycotts, concluding that “[t]he social justifications proffered for respondents’ restraint of trade . . . do not make it any less unlawful.” *Id.* at 424.

The Supreme Court followed suit last term in *Alston* when it rejected the NCAA’s sweeping plea for leniency. The NCAA argued that something more deferential than the Rule of Reason should apply to its restrictions on student-athlete compensation because the NCAA’s amateurism restrictions advance the “societally important non-commercial objective of higher education.” *Alston*, 141 S. Ct. at 2158. The Supreme Court held that this argument—that the NCAA “should be exempt from the usual operation of the antitrust laws”—should be directed to Congress, not a court. *Id.* at 2160.

Apple’s rationales categorically differ from those asserted in the above cases. Apple did not agree with other app-transaction platforms (*e.g.*, the Google Play Store) to eliminate *interbrand* competition and then invoke security and privacy to avoid the “normal operation” of the Rule of Reason. *Id.* at 2147. Rather, Apple imposed *intra-brand* limitations (that iOS devices use Apple distribution and payment-processing channels) and contends that these restrictions tap into consumer demand for a private and

secure user experience and distinguish the App Store from its open-platform competitors.

3. Cognizability of Cross-Market Rationales

Epic finally argues that, even if Apple’s security and privacy restrictions are procompetitive, they increase competition in a *different market* than the district court defined and in which Epic showed step-one anticompetitive effects, and thus are not legally cognizable at step two. In Epic’s view, Apple’s rationales relate to the market for smartphone operating systems (or the market for smartphones), while the anticompetitive effects of Apple’s restrictions impact the market for mobile-game transactions.

The Supreme Court’s precedent on this issue is not clear. While *amici* argued in *Alston* that cross-market justifications fail as a matter of law, the Supreme Court “express[ed] no view[]” on the argument. 141 S. Ct. at 2155. Dicta from one *per se* decision provides some support for Epic’s position. See *United States v. Topco Assocs., Inc.*, 405 U.S. 596, 609–10 (1972) (courts are unable “to weigh, in any meaningful sense, destruction of competition in one sector of the economy against promotion of competition in another sector”). But the Supreme Court has considered cross-market rationales in Rule of Reason and monopolization cases. See *Kodak*, 504 U.S. at 482–84 (relevant market of Kodak-brand service and parts; procompetitive rationale in market for photocopiers); *NCAA v. Bd. of Regents of Univ. of Okla.*, 468 U.S. 85, 104–08, 115–17 (1984) (relevant market of college football television; procompetitive rationale of protecting the market for college football tickets). Our court’s precedent is similar. While we have never expressly confronted this issue, we have previously considered cross-market rationales when applying the Rule

of Reason. *See O'Bannon*, 802 F.3d at 1069–73; *In re NCAA Athletic Grant-in-Aid Cap Antitrust Litig.*, 958 F.3d 1239, 1266–71 (9th Cir. 2020) (M. Smith, J., concurring).

We decline to decide this issue here. Like Epic's general cognizability argument, Epic did not raise this argument below. Nor did it raise this argument in its opening brief before our court, denying Apple an opportunity to respond. *See Miller v. Fairchild Indus., Inc.*, 797 F.2d 727, 738 (9th Cir. 1986).

More importantly, we need not decide this issue because Epic's argument rests on an incorrect reading of the record. Contrary to Epic's contention, Apple's procompetitive justifications *do* relate to the app-transactions market. Because use of the App Store requires an iOS device, there are two ways of increasing App Store output: (1) increasing the *total* number of iOS device users, and (2) increasing the *average* number of downloads and in-app purchases made by iOS device users. Below, the district court found that a large portion of consumers factored security and privacy into their decision to purchase an iOS device—increasing total iOS device users. It also found that Apple's security- and privacy-related restrictions “provide[] a safe and trusted user experience on iOS, which encourages both users and developers to transact freely”—increasing the per-user average number of app transactions.

D. Step Three: Substantially Less Restrictive Means

The district court did not clearly err when it held that Epic failed to prove the existence of substantially less restrictive alternatives (LRAs) to achieve Apple's procompetitive rationales. At step three of the Rule of Reason, “the burden shifts back to the plaintiff to demonstrate that the procompetitive efficiencies could be

reasonably achieved through less anticompetitive means.” *Alston*, 141 S. Ct. at 2160 (quoting *Amex*, 138 S. Ct. at 2284). When evaluating proposed alternative means, courts “must give wide berth to [defendants’] business judgments” and “must resist the temptation to require that enterprises employ the least restrictive means of achieving their legitimate business objectives.” *Id.* at 2163, 2166; *see also id.* at 2161 (“[A]ntitrust law does not require businesses to use anything like the least restrictive means of achieving legitimate business purposes.”). As such, this circuit’s test—which the Supreme Court approved in *Alston*—requires a “substantially less restrictive” alternative. *O’Bannon*, 802 F.3d at 1070 (emphasis added) (quoting *Tanaka v. Univ. of S. Cal.*, 252 F.3d 1059, 1063 (9th Cir. 2001)). To qualify as “substantially less restrictive,” an alternative means “must be ‘virtually as effective’ in serving the [defendant’s] procompetitive purposes . . . without significantly increased cost.” *Id.* at 1074 (quoting *County of Tuolumne v. Sonora Cmty. Hosp.*, 236 F.3d 1148, 1159 (9th Cir. 2001)).

Because LRAs inform the injunctive relief that a district court may enter if a plaintiff prevails, courts must also keep in mind “a healthy respect for the practical limits of judicial administration” when evaluating proposed LRAs. *Alston*, 141 S. Ct. at 2163. Courts should not “impose a duty . . . that it cannot explain or adequately and reasonably supervise.” *Id.* (quoting *Verizon Commc’ns Inc. v. L. Offs. Of Curtis V. Trinko, LLP*, 540 U.S. 398, 415 (2004)).

We review a district court’s findings on the existence of substantially less restrictive means for clear error. *See, e.g., NCAA Antitrust Litig.*, 958 F.3d at 1260; *O’Bannon*, 802 F.3d at 1074. This includes both the “virtually as effective” and “significantly increased cost” components encompassed in that finding. *See NCAA Antitrust Litig.*, 958 F.3d. at 1260.

1. Proposed LRA to the Distribution Restriction

Epic argues that Apple already has an LRA at its disposal for the distribution restriction: the “notarization model” that Apple uses for app distribution on its desktop and laptop operating system (macOS).¹⁶ The notarization model sits somewhere between iOS’s “walled garden” and the open-platform model that characterizes some app-transaction platforms. Unlike on iOS, the Mac Store (the Apple-run equivalent of the iOS App Store for Mac computers) is *not* the exclusive means for macOS users to download apps; instead, users can download apps from the Mac Store or anywhere else on the internet. Also unlike on iOS, a developer can distribute a macOS app to users without first submitting it to Apple. But, regardless of how the developer distributes that app, it will carry a warning that Apple has not scanned it for malware. The developer, however, can choose to submit the app to Apple. If the app passes Apple’s malware scan, then the developer can distribute the app to users—again, through the Mac Store or otherwise—without the warning that accompanies unscanned apps.

The malware scanning that Apple performs in the notarization model is not the same as the full app review that it conducts on iOS apps. Importantly, the notarization model does not include *human* review—a contextual review that, as found by the district court, cannot currently be automated. As part of iOS human review, a reviewer confirms that an app corresponds to its marketing description to weed out “Trojan Horse” apps or “social engineering” attacks that

¹⁶ In the district court, Epic also proposed the “enterprise model” (which Apple already implements for some iOS apps), but Epic does not advance that model on appeal as a proposed LRA.

trick users into downloading by posing as something they are not. The reviewer also checks that the app’s entitlements are reasonable for its purpose—rejecting, for example, a Tic-Tac-Toe game that asks for camera access and health data, while approving camera access for a social media app. On occasion, human review also detects novel, well-disguised malware attacks. Despite Epic carrying the burden at step three of the Rule of Reason, it was not clear before the district court—and still is not entirely clear—how Epic proposes that the notarization model translates from macOS to iOS. In particular, it is unclear whether the proposed model would incorporate human review and what type (if any) of licensing scheme Apple could implement to complement the notarization model.¹⁷ Whatever the precise form of Epic’s proposed notarization model, the district court did not err in rejecting it.

First, to the extent Epic argues that Apple could jot-for-jot adopt macOS’s notarization model without adding human review, Epic failed to establish that this model would be “virtually as effective” in accomplishing Apple’s procompetitive rationales of enhancing consumer appeal and distinguishing the App Store from competitor app-transaction platforms by improving user security and privacy. *See O’Bannon*, 802 F.3d at 1073. The district court

¹⁷ There is even some discrepancy between the injunctive relief Epic requests and the basic mechanics of the notarization system. As explained, the notarization model labels unscanned apps with a warning. Yet Epic requested an injunction that would prohibit Apple from in any way “impeding or deterring the distribution of iOS apps” through non-App Store “distribution channel[s].” A malware warning would seemingly steer some consumers back to the App Store—raising some question of whether it would violate the “impeding or deterring” prohibition.

ultimately found that the record contained “some evidence” that macOS computers experience higher malware rates than iOS devices. It also noted a third-party report that Android devices have higher malware rates than iOS ones due to Trojan Horse apps being distributed through open app-transaction platforms. And it credited Apple’s anecdotal evidence that human review sometimes detects novel malware attacks that slip through malware scans. Moreover, the district court found “compelling” Apple’s explanation of why human review is necessary “against certain types of attacks.” And it found that “Epic Games did not explain how, if at all” a purely automated process could screen for such threats. It also noted that Epic’s security expert testified that he did not consider fraud-prevention in his security analysis, that his opinion on the value-added of human app review “may change” if he did, and that automated protections “do not protect users against” social-engineering threats. Based on this record, the district court did not clearly err in finding that a process without human app review would not be “virtually as effective” as Apple’s current model.

Second, to the extent Epic proposes a notarization model that incorporates human app review, Epic failed to develop how Apple could be compensated in such a model for third-party developers’ use of its IP. Epic argues that “app review can be relatively independent on app distribution” and envisions a model in which a developer would submit an app, Apple would review it, and then “send it back to the developer to be distributed directly or in another store.” For example, Epic could submit a gaming app to Apple; Apple would scan it for malware and subject it to human review; and then Epic could choose to distribute it through the App Store, the Epic Games Store, or both.

While such a model would clearly be “virtually as effective” in achieving Apple’s security and privacy rationales (it contains all elements of Apple’s current model), Epic simply failed to develop how such a model would allow Apple to be compensated for developers’ use of its IP. At closing argument, the district court asked Epic whether its requested injunctive relief would allow Apple to impose some sort of licensing fee. Epic responded that “Apple can charge,” but it offered no concrete guidance on how to do so. Instead, Epic stated only that Apple “could charge certain developers more than others based on the advantage that they take of the platform” and that it “expect[s], given the innovation in Cupertino, that [Apple] would find ways to profit from their intellectual property and other contributions.” The district court accordingly found that Epic’s proposed distribution LRAs “leave unclear whether Apple can collect licensing royalties and, if so, how it would do so” and thus declined to consider them as “not sufficiently developed.”

On appeal, Epic attempts to transfigure into an LRA the district court’s off-hand statement noting the absence of “evidence that Apple could *not* create a tiered licensing scheme[,] which would better correlate the value of its intellectual property to the various levels of use by developers.” It is, however, Epic’s burden at step three to prove that a tiered licensing scheme (or some other payment mechanism) *could* achieve Apple’s IP-compensation rationale. Without any evidence in the record of what this tiered licensing scheme would look like, we cannot say that it would be “virtually as effective” without “significantly increased cost.” *O’Bannon*, 802 F.3d at 1074. Nor can we even “explain” it, let alone direct the district court to craft an

injunction that it could “adequately and reasonably supervise.” *Alston*, 141 S. Ct. at 2163.

2. Proposed LRA to the IAP Requirement

Epic proposes access to competing payment processors as an LRA to Apple’s IAP requirement. Like the distribution requirement LRA, this LRA suffers from a failure of proof on how it would achieve Apple’s IP-compensation rationale.¹⁸ As the district court noted, in a world where Apple maintains its distribution restriction but payment processing is opened up, Apple would still be contractually entitled to its 30% commission on in-app purchasers. Apart from any argument by Epic, the district court “presume[d]” that Apple could “utilize[e] a contractual right to audit developers . . . to ensure compliance with its commissions.” But the court then rejected such audits as an LRA because they “would seemingly impose both increased monetary and time costs.”

E. Step Four: Balancing

Epic—along with several *amici*, including the United States and thirty-four state attorneys general—argue that the district court erred by not proceeding to a fourth, totality-of-the-circumstances step in the Rule of Reason and balancing

¹⁸ As Epic argues, the district court’s ultimate conclusion on the security rationale (that opening up payment processing would undermine Apple’s “competitive advantage on security issues”) seems difficult to square with several of the court’s antecedent factual findings (*e.g.*, that “Apple has not show how its [IAP] process is any different” and that “any potential for fraud prevention [through IAP] is not put into practice”). Because Epic’s LRA fails on the IP-compensation aspect, we need not decide whether the district court clearly erred when it also rejected the LRA for not being virtually as effective in accomplishing Apple’s security and privacy rationales.

the anticompetitive effects of Apple’s conduct against its procompetitive benefits. We hold that our precedent requires a court to proceed to this fourth step where, like here, the plaintiff fails to carry its step-three burden of establishing viable less restrictive alternatives. However, the district court’s failure to expressly do so was harmless in this case.

We have been inconsistent in how we describe the Rule of Reason. Some decisions, when describing the Rule of Reason, contemplate a fourth step. *See, e.g., Qualcomm*, 969 F.3d at 991; *County of Tuolumne*, 236 F.3d at 1160. Others do not. *See, e.g., NCAA Antitrust Litig.*, 958 F.3d at 1263; *Tanaka*, 252 F.3d at 1063. Because of the paucity of cases that survive step one (let alone require a court to exhaust the three agreed-upon steps), most of our decisions have not required us to actually proceed to the portion of the analysis where Epic and its *amici* argue balancing would occur.¹⁹

The exception is *County of Tuolumne*, which provides the most on-point guidance regarding the existence of a fourth step. There, we held: “Because plaintiffs have failed to meet their burden of advancing viable less restrictive alternatives, we reach the balancing stage. We must balance the harms and benefits of the [challenged restrictions] to determine whether they are reasonable.” 236 F.3d at 1160 (citation omitted). We then concluded, with just one sentence of analysis, that “any anticompetitive harm is offset

¹⁹ In *Alston*, the Supreme Court cited an *amicus* brief reporting that courts have decided 90% of Rule of Reason cases since 1977 at step one. 141 S. Ct. at 2160–61. A similar *amicus* brief filed in this case echoes this statistic and reports that the figure rises to 97% when considering only post-1999 cases.

by the procompetitive effects of [defendant's] effort to maintain the quality of patient care that it provides.” *Id.*

Supreme Court precedent neither requires a fourth step nor disavows it. In the Court’s two most recent Rule of Reason decisions, it discussed only the three agreed-upon steps. *See Alston*, 141 S. Ct. at 2160; *Amex*, 138 S. Ct. at 2284. But the Court did not characterize that test as the *exclusive* expression of the Rule of Reason. *Alston* stated that the Court “has *sometimes* spoken of ‘a three-step, burden-shifting framework,’” emphasized that those “steps do not represent a rote checklist” or “an inflexible substitute for careful analysis,” and approvingly cited one of the Areeda and Hovenkamp treatises as using a “slightly different ‘decisional model.’” 141 S. Ct. at 2160 (emphasis added).

We are skeptical of the wisdom of superimposing a totality-of-the-circumstances balancing step onto a three-part test that is already intended to assess a restraint’s overall effect. Neither Epic nor any *amicus* has articulated what this balancing really entails in a given case. Epic argues only that the district court must “weigh[]” anticompetitive harms against procompetitive benefits, and the United States describes step four as a “qualitative assessment of whether the harms or benefits predominate.” Nor is it evident what value a balancing step adds. Several *amici* suggest that balancing is needed to pick out restrictions that have significant anticompetitive effects but only minimal procompetitive benefits. But the three-step framework is already designed to identify such an imbalance: A court is likely to find the purported benefits pretextual at step two, or step-three review will likely reveal the existence of viable LRAs. We are thus “wary about [this] invitation[] to ‘set sail on a sea of doubt.’” *Alston*, 141 S. Ct. at 2166 (quoting

United States v. Addyston Pipe & Steel Co., 85 F. 271, 284 (6th Cir. 1898) (Taft, J.)).

Nonetheless, we are bound by *County of Tuolumne* and mindful of *Alston*’s warning that the first three steps of the Rule of Reason are not a “rote checklist.” Therefore, where a plaintiff’s case comes up short at step three, the district court must proceed to step four and balance the restriction’s anticompetitive harms against its procompetitive benefits. In most instances, this will require nothing more than—as in *County of Tuolumne*—briefly confirming the result suggested by a step-three failure: that a business practice without a less restrictive alternative is not, on balance, anticompetitive. But the Sherman Act is a flexible statute that has and will continue to evolve to meet our country’s changing economy, so we will not “embarrass the future” by suggesting that will always be the case. *Nw. Airlines, Inc. v. Minnesota*, 322 U.S. 292, 300 (1944).

Turning to the record here, the district court’s failure to explicitly reach the fourth step was harmless. Even though it did not expressly reference step four, it stated that it “carefully considered the evidence in the record and . . . determined, based on the rule of reason,” that the distribution and IAP restrictions “have procompetitive effects that *offset* their anticompetitive effects” (emphasis added). This analysis satisfied the court’s obligation pursuant to *County of Tuolumne*, and the court’s failure to expressly give this analysis a step-four label was harmless.

III. Sherman Act Section 1: Tying

In addition to its general restraint-of-trade claim, Epic brought a Section 1 claim asserting that Apple unlawfully tied together app distribution (the App Store) and in-app payment processing (IAP). On appeal, Epic argues that (1)

the district court clearly erred when it found that Epic did not identify separate products, and (2) we can enter judgment in its favor because the tie is unlawful, either *per se* or pursuant to the Rule of Reason. We agree with Epic that the district court clearly erred in its separate-products finding, but we find that error to be harmless. The Rule of Reason applies to the tie involved here, and, for the reasons already explained, Epic failed to establish that Apple’s design of the iOS ecosystem—which ties the App Store and IAP together—is anticompetitive.

A. Existence of a Tie

“A tying arrangement is ‘an agreement by a party to sell one product but only on the condition that the buyer also purchases a different (or tied) product, or at least agrees that he will not purchase that product from any other supplier.’” *Kodak*, 504 U.S. at 461 (quoting *N. Pac. R. Co. v. United States*, 356 U.S. 1, 5–6 (1958)). To prove the existence of a tie, a party must make two showings.

First, the arrangement must, of course, involve two (or more) separate products. Pursuant to *Jefferson Parish* and *Kodak*, we apply a consumer-demand test when conducting this inquiry: To constitute two separate products, “[t]here must be sufficient consumer demand so that it is efficient for a firm to provide” the products separately. *Kodak*, 504 U.S. at 462 (citing *Jefferson Parish*, 466 U.S. at 21–22). Importantly, the separate-products inquiry “turns not on the functional relation between them, but rather on the character of the demand for the two items.” *Jefferson Parish*, 466 U.S. at 19 & n.30. This consumer-demand test, in turn, has two parts: (1) that it is possible to separate the products, and (2) that it is efficient to do so, as inferred from circumstantial

evidence. *See* Areeda & Hovenkamp, *Antitrust Law*, *supra*, ¶¶ 1743–45.

The efficiency showing does not require a full-blown economic analysis. Because the showing is just a threshold step to reaching the merits of a tie (including, sometimes, the application of a *per se* rule), it would be incongruous to require a resource-intensive showing. *See N. Pac. R. Co.*, 356 U.S. at 5 (*per se* rules are meant to “avoid[] the necessity for an incredibly complicated and prolonged economic investigation”). Accordingly, the existence of separate products is inferred from “more readily observed facts.” *Areeda & Hovenkamp, Antitrust Law, supra*, ¶ 1745c. These include consumer requests to offer the products separately, disentangling of the products by competitors, analogous practices in related markets, and the defendant’s historical practice. *See Jefferson Parish*, 466 U.S. at 22 (noting that patients and surgeons “often request specific anesthesiologists [the tied service] to come to a hospital [the tying service]” and “other hospitals often permit anesthesiologic services to be purchased separately”); *Kodak*, 504 U.S. at 463 (finding sufficient at the 12(b)(6) stage allegations that “consumers would purchase service without parts” and that the defendant had sold them “separately in the past”).

Second, even where a transaction involves separate products, it is not necessarily a tie; the seller must also “force the buyer into the purchase of a tied product that the buyer either did not want at all, or might have preferred to purchase elsewhere on different terms.” *Jefferson Parish*, 466 U.S. at 12. Were a buyer merely to agree “to buy [a] second product on its own merits” absent any coercion, there would be no tie. *Areeda & Hovenkamp, Antitrust Law, supra*, ¶ 1752.

We review a finding that no tie occurred for clear error. *Krehl v. Baskin-Robbins Ice Cream Co.*, 664 F.2d 1348, 1354 (9th Cir. 1982) (reviewing separate-products finding for clear error); *Mozart Co. v. Mercedes-Benz of N. Am., Inc.*, 833 F.2d 1342, 1346 (9th Cir. 1987) (treating coercion as a fact question).

Here, the district court found that there was no tie because app distribution and IAP are not separate products. It based this finding on four rationales—each of which is either clearly erroneous or incorrect as a matter of law.

To begin, the district court erred as a matter of law when it concluded that IAP was not separate from app distribution because IAP is “integrated into . . . iOS devices.” *Jefferson Parish* expressly rejects an approach to the separate-products inquiry based on the “functional relation” between two purported products. 466 U.S. at 19.

Next, the district court clearly erred when it found that “Epic Games presented no evidence showing that demand exists for IAP as a standalone product.” Here, the App Store and IAP clearly can be separated because Apple *already does* so in certain contexts, namely that IAP is not required for in-app purchases of physical goods. The efficiency showing is also met. Epic produced evidence that it, Facebook, Microsoft, Spotify, Match, and Netflix, have all tried to convince Apple to let them develop their own in-app payment solutions. The Epic Games Store—a direct competitor of Apple in the mobile-games submarket—delinks distribution from payment processing. And prior to IAP’s development in 2009, Apple distributed apps through the App Store but permitted developers to use their own in-app payment systems.

Relatedly, the district court clearly erred when it reasoned that, even if Apple did not require IAP, Apple would still be entitled to collect a commission on payments made and, therefore, “no economically rational developer would choose to use the alternative [payment] processor.” The district court itself found that “Epic Games raises legitimate concerns” about the non-price features of IAP, including that: “Apple does a poor job of mediating disputes between a developer and its customers”; that Apple’s one-size-fits-all refund approach “leads to poor [customer] experiences”; and that IAP’s exclusion of developers from transactions “can also increase fraud.”

Finally, the district court erred as a matter of law when it concluded that a product in a two-sided market can *never* be broken into multiple products. Despite Apple’s strained effort to portray this as a factual finding, the district court imposed a bright-line legal rule. But *Amex* simply does not stand for the proposition that any two-sided platform will necessarily relate only to one market. Instead, it emphasized that market definition must “reflect[] commercial realities.” 138 S. Ct. at 2285. Indeed, if *Amex* truly required a one-platform, one-market rule, then the district court’s market definition—mobile gaming transactions, instead of *all* app transactions—would be erroneous, despite the court’s extensive findings that game and non-game apps are characterized by significantly different demand.²⁰

²⁰ We also reject Apple’s argument that that there is no tie because “thousands of developers . . . offer no in-app purchase[s].” True, a classic tie is: “I will sell you X widgets only if you buy Y bolts from me.” Here, the DPLA essentially provides: “Apple will sell you app-distribution transactions only if you buy your in-app-purchase-

B. Lawfulness of the Tie

A tie can be unlawful pursuant to either a modified *per se* rule or the Rule of Reason. A tie is *per se* unlawful if (1) the defendant has market power in the tying product market, and (2) the “tying arrangement affects a ‘not insubstantial volume of commerce’ in the tied product market.” *Blough v. Holland Realty, Inc.*, 574 F.3d 1084, 1089 (9th Cir. 2009) (quoting *Cascade Health Solutions v. PeaceHealth*, 515 F.3d 883, 912–13 (9th Cir. 2008)). The first prong requires the market-power inquiry standard throughout antitrust law. The second prong requires only that the tie affect an amount of commerce in the tied product market that is not “*de minimis*.” *Datagate, Inc. v. Hewlett-Packard Co.*, 60 F.3d 1421, 1426 (9th Cir. 1995). These requirements are met here: Apple has market power in the app-distribution market. And the tie affects a non “*de minimis*” amount of commerce in the in-app-payment-processing market: Apple requires IAP to be used for more than half of the transactions that comprise a \$100 billion market.

Nonetheless, we join the D.C. Circuit in holding that *per se* condemnation is inappropriate for ties “involv[ing] software that serves as a platform for third-party applications.” *Microsoft*, 253 F.3d at 89. “It is only after considerable experience with certain business relationships that courts classify them as *per se* violations.” *Broad. Music, Inc. v. Columbia Broad. Sys., Inc.*, 441 U.S. 1, 9 (1979) (quoting *Topco Assocs.*, 405 U.S. at 606). That is

processing *requirements* from Apple.” Substituting a requirements term for a quantity term does not change the nature of the agreement. *See Kodak*, 504 U.S. at 461 (ties include agreement[s] “to sell one product but only on the condition that the buyer . . . not purchase that product from any other supplier” (citation omitted)).

because *per se* condemnation embodies a judicial assessment that a category of restraints is “plainly anticompetitive” and “lack[ing] . . . [in] any redeeming virtue” such that it can be “conclusively presumed illegal.” *Id.* at 7–8 (citations omitted). Given the costs of improperly condemning a practice across the board, extending a *per se* rule requires caution and judicial humility. *See White Motor Co. v. United States*, 372 U.S. 253, 263 (1963) (“We need to know more than we do about the actual impact of these arrangements on competition to decide whether they . . . should be classified as *per se* violations of the Sherman Act.”); *Microsoft*, 253 F.3d at 94 (“We do not have enough empirical evidence regarding the effect of [the] practice . . . to exercise sensible judgment regarding that entire class of behavior.”). Based on the record, we do not have the level of confidence needed to universally condemn ties related to app-transaction platforms that combine multiple functionalities. *See Microsoft*, 253 F.3d at 93 (“[B]ecause of the pervasively innovative character of platform software markets, tying in such markets may produce efficiencies that courts have not previously encountered and thus the Supreme Court had not factored into the *per se* rule as originally conceived.”).

The tie in this case differs markedly from those the Supreme Court considered in *Jefferson Parish* and prior tying cases. Particularly, “[i]n none of these cases was the tied good . . . technologically integrated with the tying good.” *Microsoft*, 253 F.3d at 90. Moreover, none of the ties presented any purported procompetitive benefits that could not be achieved by adopting quality standards for third-party suppliers of the tied good, as Apple does here. *Id.*; *see also Int’l Salt Co. v. United States*, 332 U.S. 392, 398 (1947) (noting purported benefit can be achieved by

implementing quality control for machine consumables), *abrogated on other grounds by Ill. Tool*, 547 U.S. 28; *Int'l Bus. Machs. Corp. v. United States*, 298 U.S. 131, 139 (1936) (same).

Moreover, while *Jefferson Parish*'s separate-products test filters out procompetitive bundles from *per se* scrutiny in traditional markets, we are skeptical that it does so in the market involved here. Software markets are highly innovative and feature short product lifetimes—with a constant process of bundling, unbundling, and rebundling of various functions. In such a market, any first-mover product risks being labeled a tie pursuant to the separate-products test. *See Microsoft*, 253 F.3d at 92. If *per se* condemnation were to follow, we could remove would-be popular products from the market—dampening innovation and undermining the very competitive process that antitrust law is meant to protect. The Rule of Reason guards against that risk by “afford[ing] the first mover an opportunity to demonstrate that an efficiency gain from its ‘tie’ adequately offsets any distortion of consumer choice.” *Id.*

Applying the Rule of Reason to the tie involved here, it is clearly lawful. Epic's tying claim (that app distribution and payment processing are tied together) is simply a repackaging of its generic Section 1 claim (that the conditions under which Apple offers its app-transactions product are unreasonable). For the reasons we explained above, Epic failed to carry its burden of proving that Apple's structure of the iOS ecosystem is unreasonable. *See supra* section II.

IV. Sherman Act Section 2: Monopoly Maintenance

We now consider Epic's Sherman Act Section 2 claim that Apple unlawfully maintained a monopoly. Section 2

makes it unlawful to “monopolize, or attempt to monopolize, or combine or conspire . . . to monopolize” a market. 15 U.S.C. § 2. A Section 2 monopolization claim “has two elements: (1) the possession of monopoly power in the relevant market and (2) the willful acquisition or maintenance of that power as distinguished from growth or development as a consequence of a superior product, business acumen, or historic accident.” *United States v. Grinnell Corp.*, 384 U.S. 563, 570–71 (1966); *accord Qualcomm*, 969 F.3d at 990; *Microsoft*, 253 F.3d at 50.

At step one, the plaintiff must establish that the defendant possesses monopoly power, which is the substantial ability “to control prices or exclude competition.” *Grinnell*, 384 U.S. at 571; *accord United States v. Syufy Enters.*, 903 F.2d 659, 664 (9th Cir. 1990). Monopoly power differs in degree from market power, requiring “something greater.” *Kodak*, 504 U.S. at 481; *see also* Areeda & Hovenkamp, *Antitrust Law*, *supra*, ¶ 600b (market power and monopoly power exist along a spectrum). Like market power, monopoly power can be established either directly or indirectly. *Rebel Oil*, 51 F.3d at 1434; *see Microsoft*, 253 F.3d at 51.

At step two, the plaintiff must show that the defendant acquired or maintained its monopoly through “anticompetitive conduct.” *Trinko*, 540 U.S. at 407. This anticompetitive-conduct requirement is “essentially the same” as the Rule of Reason inquiry applicable to Section 1 claims. *Qualcomm*, 969 F.3d at 991; *see also Microsoft*, 253 F.3d at 59 (“[I]t is clear . . . that the analysis under section 2 is similar to that under section 1 regardless whether the rule of reason label is applied.” (citation omitted)). Where, like here, the plaintiff challenges the same conduct pursuant to Sections 1 and 2, we can “review claims under each section

simultaneously.” *Qualcomm*, 969 F.3d at 991. And if “a court finds that the conduct in question is not anticompetitive under § 1, the court need not separately analyze the conduct under § 2.” *Id.*

At step one in this case, the district court found that although Apple possesses “considerable” market power in the market for mobile-game transactions, that power is not durable enough to constitute monopoly power given the influx nature of the market. It then, at step two, echoed its Rule of Reason conclusion that Epic failed to establish Apple’s restrictions were anticompetitive.

We affirm the district court’s rejection of Section 2 liability. Epic does not argue on appeal that the district court clearly erred in finding that Apple lacks monopoly power in the mobile-games market. It argues only that the district court erred in rejecting its single-brand markets in which Apple would have a 100% market share—an argument we reject above. *See supra* section I. Moreover, even assuming Apple has monopoly power, Epic failed to prove Apple’s conduct was anticompetitive. *See supra* sections II–III.

V. Breach of Contract

Apple counter-sued Epic for breach of contract. Epic stipulated that it breached the DPLA when it implemented the *Fortnite* hotfix, which allowed it to process in-game transactions in violation of Apple’s IAP restriction. Epic raised several affirmative defenses, however, and argued that the DPLA is illegal, void as against public policy, and

unconscionable. The district court rejected each defense, and Epic now challenges the illegality holding on appeal.²¹

The parties agree that Epic’s illegality defense rises and falls with its Sherman Act claims. Because we affirm the district court’s holding that Epic failed to prove Apple’s liability pursuant to the Sherman Act, we also affirm its rejection of Epic’s illegality defenses.

VI. California’s Unfair Competition Law

We now turn to Apple’s cross-appeal, beginning with its arguments concerning the UCL. The district court found that Epic suffered an injury sufficient to confer Article III standing, concluded that Apple’s anti-steering provision violates the UCL’s unfair prong, and entered an injunction prohibiting Apple from enforcing the anti-steering provision against any developer. Apple challenges each aspect on appeal. We affirm.

A. Standing

Article III limits federal courts’ jurisdiction to “[c]ases” and “[c]ontroversies.” U.S. Const. art. III, § 2. “One

²¹ In its briefs, Epic also asserts that the district court erred in ruling that the DPLA was neither void-against-public-policy nor unconscionable, but the only substantive argument it makes is that the DPLA violates the Sherman Act. These doctrines, however, do not sound in express illegality. *See* Cal. Civ. Code § 1667(2) (a contract is void if it is “contrary to the policy of express law, though not expressly prohibited”); *Lhotka v. Geographic Expeditions, Inc.*, 181 Cal. App. 4th 816, 821, 824 (2010) (a contract is unconscionable if there is a disparity in bargaining power and the contract “reallocates risks in an objectively unreasonable or unexpected manner”). As such, Epic’s invocation of these doctrines without any relevant argument is insufficient to raise them on appeal. *See Singh v. Am. Honda Fin. Corp.*, 925 F.3d 1053, 1075 n.22 (9th Cir. 2019).

essential aspect of this [limitation] is that any person invoking the power of a federal court must demonstrate standing to do so.” *Va. House of Delegates v. Bethune-Hill*, 139 S. Ct. 1945, 1950 (2019) (quoting *Hollingsworth v. Perry*, 570 U.S. 693, 704 (2013)). Constitutional standing requires a showing of: “(1) a concrete and particularized injury, that (2) is fairly traceable to the challenged conduct, and (3) is likely to be redressed by a favorable decision.” *Id.* Article III requires “that an ‘actual controversy’ persist throughout all stages of litigation.” *Id.* at 1951 (quoting *Hollingsworth*, 570 U.S. at 705).

Apple terminated Epic’s iOS developer account in August 2020. Then in September 2021 after the district court issued its order holding that Epic breached the DPLA, Apple informed Epic that it had no intention of reinstating Epic’s developer account. As a result, Epic has no apps remaining on the App Store. Apple therefore argues that Epic is no longer injured by the anti-steering provision. Apple’s argument, however, overlooks two critical aspects of the record. First, while Epic itself has no apps on the App Store, its subsidiaries do—causing Epic to be injured through the anti-steering provision’s effects on its subsidiaries’ earnings. Second, Epic is a competing game distributor through the Epic Games Store and offers a 12% commission compared to Apple’s 30% commission. If consumers can learn about lower app prices, which are made possible by developers’ lower costs, and have the ability to substitute to the platform with those lower prices, they will do so—increasing the revenue that the Epic Games Store generates. As such, the district court did not clearly err in finding that Apple’s anti-steering provision injures Epic.

B. Merits

As relevant here, the UCL prohibits “any [1] unlawful, [2] unfair or [3] fraudulent business act or practice.” Cal. Bus. & Prof. Code § 17200. As the UCL’s three-prong structure makes clear, a business practice may be “unfair,” and therefore illegal under the UCL, “even if not specifically proscribed by some other law.” *Cel-Tech Commc’ns, Inc. v. L.A. Cellular Tel. Co.*, 20 Cal. 4th 163, 180 (1999). The unfair prong is “intentionally framed in its broad, sweeping language, precisely to enable judicial tribunals to deal with the innumerable ‘new schemes which the fertility of man’s invention would contrive.’” *Id.* (quoting *Am. Philatelic Soc. v. Claibourne*, 3 Cal. 2d 689, 698 (1935)); see also *People ex rel. Mosk v. Nat’l Research Co. of Cal.*, 201 Cal. App. 2d 765, 772 (1962) (the UCL covers unfair practices that “may run the gamut of human ingenuity and chicanery”).

The California Supreme Court has refined this “wide standard,” *Cel-Tech*, 20 Cal. 4th at 181, into two tests relevant to this litigation. First, to support “any finding of unfairness to *competitors*,” a court uses the “tethering” test, which asks whether the defendant’s conduct “threatens an incipient violation of an antitrust law, or violates the policy or spirit of one of those laws because its effects are comparable to or the same as a violation of the law, or otherwise significantly threatens or harms competition.” *Id.* at 186–87 (emphasis added). Second, to support a finding of unfairness to *consumers*, a court uses the balancing test, which “weigh[s] the utility of the defendant’s conduct against the gravity of the harm to the alleged victim.” *Progressive W. Ins. Co. v. Super. Ct.*, 135 Cal. App. 4th 263, 285 (2005) (citation omitted). These tests “are not mutually exclusive.” *Lozano v. AT&T Wireless Servs., Inc.*, 504 F.3d

718, 736 (9th Cir. 2007) (citing *Schnall v. Hertz Corp.*, 78 Cal. App. 4th 1144 (2000)).

Here, the district court applied both tests. Through the Epic Games Store, Epic is a games-distribution competitor of Apple—triggering the competitor test. Through its subsidiaries that have apps on the App Store, Epic consumes the app transactions that Apple offers in a two-sided market—triggering the consumer test. *Cf. Amex*, 138 S. Ct. at 2286 (each side of two-sided market “jointly consume[s] a single product” (citation omitted)). Applying the tethering test, the court found that the anti-steering provisions “decrease [consumer] information,” enabling supracompetitive profits and resulting in decreased innovation. It relied on Apple’s own internal communications for the proposition that the anti-steering provision prevents developers from using two of the three “most effective marketing activities,” push notifications and email outreach. It then reiterated these factual findings to conclude that the provision also violates the balancing test.

Apple does not directly challenge the district court’s application of the UCL’s tethering and balancing tests to the facts of this case. Instead, Apple makes two arguments attacking UCL liability as a matter of law. Neither is supported by California law.

1. Safe-Harbor Doctrine

Apple argues that Epic’s failure to establish Sherman Act liability forecloses UCL liability pursuant to the UCL’s “safe harbor” doctrine, which bars a UCL action where California or federal statutory law “absolutely preclude[s] private causes of action or clearly permit[s] the defendant’s conduct.” *Zhang v. Sup. Ct.*, 57 Cal. 4th 364, 379–80 (2013). The safe-harbor doctrine emphasizes that there is a

“difference between (1) not making an activity unlawful, and (2) making that activity lawful.” *Cel-Tech*, 20 Cal. 4th at 183; *accord Zhang*, 57 Cal. 4th at 379. Accordingly, in every instance where a court found the Sherman Act to preclude a UCL action, a *categorical* antitrust rule formed the basis of the decision. We held that the judge-made baseball exemption—that “the business of providing public baseball games for profit . . . [is] not within the scope of the federal antitrust laws”—precluded a UCL action. *City of San Jose v. Off. of the Com’r of Baseball*, 776 F.3d 686, 689 (9th Cir. 2015) (quoting *Toolson v. N.Y Yankees, Inc.*, 346 U.S. 356, 357 (1953)). A California Court of Appeal similarly held that the *Colgate* doctrine—that it is lawful for a company to unilaterally announce the terms on which it will deal—precluded a UCL action. *Chavez v. Whirlpool Corp.*, 93 Cal. App. 4th 363, 367, 373, 375 (2001).

Neither Apple nor any of its *amici* cite a single case in which a court has held that, when a federal antitrust claim suffers from a *proof deficiency*, rather than a *categorical legal bar*, the conduct underlying the antitrust claim cannot be deemed unfair pursuant to the UCL. Indeed, in a leading case on the safe-harbor exception, the California Supreme Court permitted a UCL claim against a predatory-price scheme to proceed even though the plaintiff failed to prove—as state antitrust law requires—that the defendant intended to harm competition through the scheme. *Cel-Tech*, 20 Cal. 4th at 183. Apple’s rule would convert any Rule of Reason shortcoming into a UCL defense and undermine the UCL’s three-prong structure by collapsing the “unfair” and “unlawful” prongs into each other. We

reject Apple’s proposed rule as foreclosed by California law.²²

2. Importation of Sherman Act Principles

Apple next argues that two principles from Sherman Act case law preclude UCL liability here. We find neither argument persuasive. First, Apple contends that the Supreme Court’s decision in *Amex*—finding in favor of American Express in a suit challenging its anti-steering provision—bars UCL liability stemming from Apple’s anti-steering provision. Apple does not explain how *Amex*’s fact- and market-specific application of the first prong of the Rule of Reason establishes a categorical rule approving anti-steering provisions, much less one that sweeps beyond the Sherman Act to reach the UCL. *Amex* was based on the plaintiff’s failure to establish direct evidence of anticompetitive effects through a reduction in output, supracompetitive pricing, or excessively high profit margins; it was not a blanket approval of anti-steering provisions. *See Amex*, 138 S. Ct. at 2288.

Second, Apple argues that the UCL mandates trial courts to define a relevant market and then conduct the balancing test within that market (similar to the Rule of Reason). Again, Apple does not cite any California authority for this proposition. Moreover, such a rule runs contrary to California courts’ repeated instruction that “[n]o inflexible rule can be laid down as to what conduct will constitute unfair competition.” *E.g., Pohl v. Anderson*, 13 Cal. App.

²² Several *amici* contend that, under current California case law, the UCL provides insufficient guidance to businesses. That argument, however, fundamentally misunderstands our role when we interpret and apply state law while exercising diversity or supplemental jurisdiction.

2d 241, 242 (1936) (citation omitted). It also contradicts a California Supreme Court decision that conducted something akin to quick-look review (in which a precise market-definition is not needed) when confronted with significant restrictions on the free flow of price information. *See Oakland-Alameda Cnty. Builders' Exch. v. F. P. Lathrop Constr. Co.*, 4 Cal. 3d 354, 363–64 (1971) (invalidating a prohibition on unsealing competitor bids after bidding had culminated on the grounds that it “restrain[ed] open price competition and unlawfully tamper[ed] with the pricing structure”).

C. Injunctive Relief

Apple also argues that (1) the district clearly erred when it found that Epic’s injuries were irreparable, and (2) it abused its discretion when applying the injunction against all developers, not just Epic’s subsidiaries that have apps on the App Store. We disagree.

Even where the UCL authorizes injunctive relief pursuant to state law, a federal court must also ensure that the relief comports with “the traditional principles governing equitable remedies in federal courts.” *Sonner v. Premier Nutrition Corp.*, 971 F.3d 834, 844 (9th Cir. 2020). To issue an injunction, the court must find: “(1) that [the plaintiff] has suffered an irreparable injury; (2) that remedies available at law, such as monetary damages, are inadequate to compensate for that injury; (3) that, considering the balance of hardships between the plaintiff and defendant, a remedy in equity is warranted; and (4) that the public interest would not be disserved by a permanent injunction.” *Galvez v. Jaddou*, 52 F.4th 821, 831 (9th Cir. 2022) (quoting *eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388, 391 (2006)). Moreover, injunctive relief must be no “more burdensome to

the defendant than necessary to provide complete relief to the plaintiff[.]” *L.A. Haven Hospice, Inc. v. Sebelius*, 638 F.3d 644, 664 (9th Cir. 2011) (quoting *Califano v. Yamasaki*, 442 U.S. 682, 702 (1979)). We review a district court’s decision to grant a permanent injunction, and the scope of that injunction, for an abuse of discretion and review the factual findings underlying the injunction for clear error. *NCAA Antitrust Litig.*, 958 F.3d at 1253.

1. Issuance of the Injunction

First, the district court did not clearly err in finding that Epic suffered an injury for which monetary damages would be inadequate. While economic injury is generally not considered irreparable, it is where the underlying injury does not readily lend itself to calculable money damages. *See Rent-A-Ctr., Inc. v. Canyon Television & Appliance Rental, Inc.*, 944 F.2d 597, 603 (9th Cir. 1991). Here, the district court found that the anti-steering provision “is not easily remedied with money damages,” a finding that has ample support in the record. In 2019, there were over 300,000 games on the App Store. Calculating the damages caused by the anti-steering provision would require a protracted and speculative inquiry into: the availability of each of those 300,000 games on the Epic Games Store, the percentage of revenue on each game that comes from users who multi-home and can therefore substitute, and how high the substitution rate would be among those multi-home users.²³

²³ Apple also asserts—in one sentence and without any authority—that the district court abused its discretion in failing to hold that Apple’s unclean-hands argument precluded injunctive relief. This passing statement was insufficient to raise this issue on appeal. *See Singh*, 925 F.3d at 1075 n.22.

2. Scope of the Injunction

Second, the district court did not abuse its discretion when setting the scope of the injunctive relief because the scope is tied to Epic's injuries. The district court found that the anti-steering provision harmed Epic by (1) increasing the costs of Epics' subsidiaries' apps that are still on the App Store, and (2) preventing other apps' users from becoming would-be Epic Games Store consumers. Because Epic benefits in this second way from consumers of other developers' apps making purchases through the Epic Games Store, an injunction limited to Epic's subsidiaries would fail to address the full harm caused by the anti-steering provision.

VII. Attorney Fees

We reverse the district court's holding that the DPLA's indemnification provision does not require Epic to pay Apple's attorney fees related to this litigation. Based on the DPLA's choice-of-law provision, we interpret its indemnification provision pursuant to California contact-interpretation principles. We review the district court's interpretation of a contract *de novo*. *Shivkov v. Artex Risk Sols., Inc.*, 974 F.3d 1051, 1058 (9th Cir. 2020).

California courts presume that “[a] clause that contains the words ‘indemnify’ and ‘hold harmless’ generally obligates the indemnitor to reimburse the indemnitee for any damages the indemnitee becomes obligated to pay third persons—that is, it relates to *third party* claims, *not* attorney fees incurred in a breach of contract action *between the parties* to the indemnity agreement itself.” *Alki Partners, LP v. DB Fund Servs., LLC*, 4 Cal. App. 5th 574, 600 (2016) (emphasis added). However, courts also look to “the context in which the language appears.” *Id.* A contract, therefore,

can rebut this presumption with language that “specifically provide[s] for attorney’s fees in an action on the contract.” *Id.* at 600–01 (emphasis omitted) (citation omitted). For example, the California Court of Appeal read an indemnification clause to cover intra-party disputes when the clause covered all losses “whether or not arising out of third party [c]laims.” *Dream Theater, Inc. v. Dream Theater*, 124 Cal. App. 4th 547, 556–57 (2004). And it did the same where an indemnification clause was accompanied by a clause clarifying that, in addition to the remedies listed in the indemnification clause, each party could also seek specific performance for certain breaches of the contract—a provision that “would be unnecessary if indemnification only referred to third party claims.” *Zalkind v. Ceradyne, Inc.*, 194 Cal. App. 4th 1010, 1028 (2011).

Turning to the facts here, section 10 of the DPLA provides that Epic “agree[s] to indemnify and hold harmless, and upon Apple’s request, defend, Apple[] . . . from any and all claims, losses, liabilities, damages, taxes, expenses and costs, including without limitation, attorneys’ fees and court costs . . . , incurred by [Apple] and arising from or related to” several enumerated grounds. One grounds, clause (i), applies to Epic’s “breach of any certification, covenant, obligation, representation or warranty in [the DPLA].”

Clause (i) rebuts the *Alki Partners* presumption by “specifically provid[ing] for attorney’s fees in an action on the contract.” 4 Cal. App. 5th at 600–01. It expressly refers to Epic’s “breach” of its obligations pursuant to the DPLA—contemplating an intra-party action for breach of contract, not claims by third parties. The surrounding context of section 10 buttresses this conclusion. Section 14.3 of the DPLA disclaims that the agreement “is not for the benefit of any third parties.” Indeed, Epic has not identified a single

situation in which a third-party could possibly sue Apple pursuant to clause (i). Therefore, we hold that clause (i) contemplates intra-party disputes and Apple is entitled to attorney fees pursuant to it.²⁴

CONCLUSION

To echo our observation from the NCAA student-athlete litigation: There is a lively and important debate about the role played in our economy and democracy by online transaction platforms with market power. Our job as a federal Court of Appeals, however, is not to resolve that debate—nor could we even attempt to do so. Instead, in this decision, we faithfully applied existing precedent to the facts as the parties developed them below. For the foregoing reasons, we **AFFIRM IN PART AND REVERSE AND REMAND IN PART.**

S.R. THOMAS, Circuit Judge, concurring in part and dissenting in part:

I agree with much of the majority opinion. I fully agree that the district court properly granted Epic injunctive relief on its California Unfair Competition Law claims. I also fully agree that the district court properly rejected Epic’s illegality defenses to the Developer Program Licensing Agreement (“DPLA”) but that, contrary to the district court’s decision, the DPLA does require Epic to pay attorney fees for its breach. On the federal claims, I also agree that the district

²⁴ We express no opinion on what portion of Apple’s attorney fees incurred in this litigation can be fairly attributed to Epic’s breach of the DPLA, such that they fall within the scope of clause (i).

court erred in defining the relevant market and erred when it held that a non-negotiated contract of adhesion falls outside of the scope of Section 1 of the Sherman Act. However, unlike the majority, I would not conclude that these errors were harmless. An error is harmless if it “do[es] not affect the substantial rights of the parties.” 28 U.S.C. § 2111. The district court’s errors relate to threshold analytical steps, and the errors affected Epic’s substantial rights. Thus, I would reverse the district court and remand to evaluate the claims under the correct legal standard.

“A threshold step in any antitrust case is to accurately define the relevant market” *Fed. Trade Comm’n v. Qualcomm Inc.*, 969 F.3d 974, 992 (9th Cir. 2020). “Without a definition of [the] market there is no way to measure [the defendant’s] ability to lessen or destroy competition.” *Ohio v. Am. Express Co.*, 138 S. Ct. 2274, 2285 (2018) (alterations in original) (quoting *Walker Process Equip., Inc. v. Food Mach. & Chem. Corp.*, 382 U.S. 172, 177 (1965)).

I agree with the majority that the district court erred in rejecting Epic’s proffered foremarket. The district court rejected the foremarket of mobile operating systems because Apple does not sell or license its operating system separately from its smartphones. But we have previously recognized that such a market can exist. *See Digidyne Corp. v. Data Gen. Corp.*, 734 F.2d 1336, 1338–39 (9th Cir. 1984), *implicitly overruled on other grounds by Ill. Tool Works Inc. v. Indep. Ink, Inc.*, 547 U.S. 28, 31 (2006) (holding that separate markets existed for software and hardware even when they were always bundled together).

The district court then rejected Epic’s proposed aftermarket of solutions for iOS app payment processing

(“IAP”) because IAP is integrated into the operations system. This conclusion was not only legally erroneous, but in contradiction to the district court’s factual finding of separate demand. *See Jefferson Parish Hosp. Dist. No. 2 v. Hyde*, 466 U.S. 2, 19 (1984) (“[W]hether one or two products are involved turns . . . on the character of the demand for the two items . . . not on the functional relation between them . . .”).

I also agree with the majority that the district court erred in holding that a non-negotiated contract of adhesion falls outside of the scope of § 1 of the Sherman Act and, therefore, the Developer Program License Agreement was not a contract covered under § 1. “[E]very commercial agreement’ . . . among two or more entities” qualifies as a § 1 agreement. *Paladin Assocs., Inc. v. Mont. Power Co.*, 328 F.3d 1145, 1154 n.7 (9th Cir. 2003) (emphasis in original) (quoting *Nw. Wholesale Stationers, Inc. v. Pac. Stationery & Printing Co.*, 472 U.S. 284, 289 (1985)). This includes a contract of adhesion. *See Perma Life Mufflers, Inc. v. Int’l Parts Corp.*, 392 U.S. 134, 141–142 (1968), *overruled on other grounds by Copperweld Corp. v. Indep. Tube Corp.*, 467 U.S. 752, 777 (1984).

The majority holds that the errors were harmless given the district court’s analysis of the remaining steps in the Rule of Reason analysis. However, there is no direct authority for that proposition, and it amounts to appellate court fact-finding. Indeed, the Supreme Court has instructed that “courts usually cannot properly apply the rule of reason without an accurate definition of the relevant market.” *Am. Express*, 138 S. Ct. at 2285.

Correction of these errors would have changed the substance of the district court’s Rule of Reason analysis. *See*

Qualcomm, 969 F.3d at 992. Unless the correct relevant market is identified, one cannot properly assess anticompetitive effects, procompetitive justifications, and the satisfaction of procompetitive justifications through less anticompetitive means. The analysis is different; therefore, the errors affected substantial rights and cannot be considered harmless.

Relying on the district court's market does not solve this problem. The parties formulated arguments around their own markets—not the district court's market. Remand would have given the parties an opportunity to argue whether the DPLA worked unfair competition in the district court's market.

The effect on substantial rights in this case is magnified by the majority's holding that, under *County of Tuolumne v. Sonora Community Hospital*, when the plaintiff shows anticompetitive effects but fails to show a less restrictive alternative to the defendant's procompetitive justification, the court must balance the anticompetitive harms against the procompetitive benefits. 236 F.3d 1148, 1160 (9th Cir. 2001). The district court did not undertake a formal *Tuolumne* balancing analysis as such, although the majority concludes that the district court's analysis was sufficient. Remand for a formal balancing should be required. Regardless, the effect of the legal errors on any balancing is obvious. The district court analyzed anticompetitive effects in terms of increases in the cost of mobile gaming transactions—the court's relevant market. But the court could have found greater increases in costs if its analysis concerned Epic's markets, and this would change a properly conducted balancing analysis. In essence, any balancing done out of the context of a relevant market necessarily involves putting a thumb on the balancing scale.

Accordingly, the district court’s legal errors “affect[ed Epic’s] substantial rights” and therefore were not harmless. *See* 28 U.S.C. § 2111. I would remand for the district court to re-analyze the case using the proper threshold determination of the relevant market.

Therefore, I respectfully concur in part and dissent in part.

EXHIBIT 10

UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT

FILED

JUN 30 2023

MOLLY C. DWYER, CLERK
U.S. COURT OF APPEALS

EPIC GAMES, INC.,

Plaintiff-counter-
defendant-Appellant,

v.

APPLE, INC.,

Defendant-counter-claimant-
Appellee.

No. 21-16506

D.C. No. 4:20-cv-05640-YGR
Northern District of California,
Oakland

ORDER

EPIC GAMES, INC.,

Plaintiff-counter-
defendant-Appellee,

v.

APPLE, INC.,

Defendant-counter-claimant-
Appellant.

No. 21-16695

D.C. No. 4:20-cv-05640-YGR

Before: S.R. THOMAS and M. SMITH, Circuit Judges, and McSHANE,* District Judge.

The panel has unanimously voted to deny the petitions for panel rehearing. Judge M. Smith has voted to deny the petitions for rehearing en banc, and Judges

* The Honorable Michael J. McShane, United States District Judge for the District of Oregon, sitting by designation.

S.R. Thomas and McShane so recommend. The full court has been advised of the petitions for rehearing en banc and no judge of the court has requested a vote. Fed. R. App. P. 35. The petitions for panel rehearing and rehearing en banc (Dkt Nos. 224 and 225) are DENIED.

EXHIBIT 11

Discover

Design

Develop

Distribute

Support

Account

App Store

Overview

Features

Articles

Guidelines

Developer Insights

App Store Review Guidelines

Apps are changing the world, enriching people's lives, and enabling developers like you to innovate like never before. As a result, the App Store has grown into an exciting and vibrant ecosystem for millions of developers and more than a billion users. Whether you are a first time developer or a large team of experienced programmers, we are excited that you are creating apps for the App Store and want to help you understand our guidelines so you can be confident your app will get through the review process quickly.

PLAINTIFF
U.S. District Court - NDCAL
4:20-cv-05640-YGR-TSH
Epic Games, Inc. v. Apple Inc.
Ex. No. PX-2790
Date Entered _____
By _____

Introduction

Before You Submit

1. Safety

2. Performance

3. Business

4. Design

5. Legal

After You Submit

Introduction

The guiding principle of the App Store is simple - we want to provide a safe experience for users to get apps and a great opportunity for all developers to be successful. We do this by offering a highly curated App Store where every app is reviewed by experts and an editorial team helps users discover new apps every day. For everything else there is always the open Internet. If the App Store model and guidelines are not best for your app or business idea that's okay, we provide Safari for a great web experience too.

On the following pages you will find our latest guidelines arranged into five clear sections: Safety, Performance, Business, Design, and Legal. The App Store is always changing and improving to keep up with the needs of our customers and our products. Your apps should change and improve as well in order to stay on the App Store.

A few other points to keep in mind:

- We have lots of kids downloading lots of apps. Parental controls work great to protect kids, but you have to do your part too. So know that we're keeping an eye out for the kids.
- The App Store is a great way to reach hundreds of millions of people around the world. If you build an app that you just want to show to family and friends, the App Store isn't the best way to do that. Consider using Xcode to install your app on a device for free or use Ad Hoc distribution available to Apple Developer Program members. If you're just getting started, learn more about the [Apple Developer Program](#).
- We strongly support all points of view being represented on the App Store, as long as the apps are respectful to users with differing opinions and the quality of the app experience is great. We will reject apps for any content or behavior that we believe is over the line. What line, you ask? Well, as a Supreme Court Justice once said, "I'll know it when I see it". And we think that you will also know it when you cross it.
- If you attempt to cheat the system (for example, by trying to trick the review process, steal user data, copy another developer's work, manipulate ratings or App Store discovery) your apps will be removed from the store and you will be expelled from the Developer Program.

PX-2790.1

- You are responsible for making sure everything in your app complies with these guidelines, including ad networks, analytics services, and third-party SDKs, so review and choose them carefully.
- Some features and technologies that are not generally available to developers may be offered as an entitlement for limited use cases. For example, we offer entitlements for CarPlay Audio, HyperVisor, and Privileged File Operations. Review our documentation on [developer.apple.com](#) to learn more about entitlements.

We hope these guidelines help you sail through the App Review process, and that approvals and rejections remain consistent across the board. This is a living document; new apps presenting new questions may result in new rules at any time. Perhaps your app will trigger this. We love this stuff too, and honor what you do. We're really trying our best to create the best platform in the world for you to express your talents and make a living, too.

Before You Submit

To help your app approval go as smoothly as possible, review the common missteps listed below that can slow down the review process or trigger a rejection. This doesn't replace the guidelines or guarantee approval, but making sure you can check every item on the list is a good start. If your app no longer functions as intended or you're no longer actively supporting it, it will be removed from the App Store. [Learn more about App Store Improvements.](#)

Make sure you:

- Test your app for crashes and bugs
- Ensure that all app information and metadata is complete and accurate
- Update your contact information in case App Review needs to reach you
- Provide an active demo account and login information, plus any other hardware or resources that might be needed to review your app (e.g. login credentials or a sample QR code)
- Enable backend services so that they're live and accessible during review
- Include detailed explanations of non-obvious features and in-app purchases in the App Review notes, including supporting documentation where appropriate
- Check whether your app follows guidance in other documentation, such as:

Development Guidelines

- [UIKit](#)
- [AppKit](#)
- [WatchKit](#)
- [App Extensions](#)
- [iOS Data Storage Guidelines](#)
- [Apple File System](#)
- [App Store Connect Help](#)
- [Developer Account Help](#)

Design Guidelines

- [Human Interface Guidelines](#)

Brand and Marketing Guidelines

PX-2790.2

[Marketing Resources and Identity Guidelines](#)[Apple Pay Marketing Guidelines](#)[Add to Apple Wallet Guidelines](#)[Guidelines for Using Apple Trademarks and Copyrights](#)

1. Safety

When people install an app from the App Store, they want to feel confident that it's safe to do so—that the app doesn't contain upsetting or offensive content, won't damage their device, and isn't likely to cause physical harm from its use. We've outlined the major pitfalls below, but if you're looking to shock and offend people, the App Store isn't the right place for your app.

1.1 Objectionable Content

Apps should not include content that is offensive, insensitive, upsetting, intended to disgust, in exceptionally poor taste, or just plain creepy. Examples of such content include:

1.1.1 Defamatory, discriminatory, or mean-spirited content, including references or commentary about religion, race, sexual orientation, gender, national/ethnic origin, or other targeted groups, particularly if the app is likely to humiliate, intimidate, or harm a targeted individual or group. Professional political satirists and humorists are generally exempt from this requirement.

1.1.2 Realistic portrayals of people or animals being killed, maimed, tortured, or abused, or content that encourages violence. "Enemies" within the context of a game cannot solely target a specific race, culture, real government, corporation, or any other real entity.

1.1.3 Depictions that encourage illegal or reckless use of weapons and dangerous objects, or facilitate the purchase of firearms or ammunition.

1.1.4 Overtly sexual or pornographic material, defined by Webster's Dictionary as "explicit descriptions or displays of sexual organs or activities intended to stimulate erotic rather than aesthetic or emotional feelings."

1.1.5 Inflammatory religious commentary or inaccurate or misleading quotations of religious texts.

1.1.6 False information and features, including inaccurate device data or trick/joke functionality, such as fake location trackers. Stating that the app is "for entertainment purposes" won't overcome this guideline. Apps that enable anonymous or prank phone calls or SMS/MMS messaging will be rejected.

1.2 User Generated Content

Apps with user-generated content present particular challenges, ranging from intellectual property infringement to anonymous bullying. To prevent abuse, apps with user-generated content or social networking services must include:

- A method for filtering objectionable material from being posted to the app
- A mechanism to report offensive content and timely responses to concerns
- The ability to block abusive users from the service
- Published contact information so users can easily reach you

Apps with user-generated content or services that end up being used primarily for pornographic content, Chatroulette-style experiences, objectification of real people (e.g. "hot-or-not" voting), making physical threats, or bullying do not belong on the App Store and may be removed without notice. If your app includes user-generated content from a web-based service, it may display incidental mature "NSFW" content, provided that the content is hidden by default and only displayed when the user turns it on via your website.

1.3 Kids Category

The Kids Category is a great way for people to easily find apps that are designed for children. If you want to participate in the Kids Category, you should focus on creating a great experience specifically for younger users. These apps must not include links out of the app, purchasing opportunities, or other distractions to kids unless reserved for a designated area behind a parental gate. Keep in mind that once customers expect your app to follow the Kids Category requirements, it will need to continue to meet these guidelines in subsequent updates, even if you decide to deselect the category. Learn more about [parental gates](#).

You must comply with applicable privacy laws around the world relating to the collection of data from children online. Be sure to review the [Privacy section](#) of these guidelines for more information. In addition, Kids Category apps may not send personally identifiable information or device information to third parties. Apps in the Kids Category should not include third-party analytics or third-party advertising. This provides a safer experience for kids. In limited cases, third-party analytics may be permitted provided that the services do not collect or transmit the IDFA or any identifiable information about children (such as name, date of birth, email address), their location, or their devices. This includes any device, network, or other information that could be used directly or combined with other information to identify users and their devices. Third-party contextual advertising may also be permitted in limited cases provided that the services have publicly documented practices and policies for Kids Category apps that include human review of ad creatives for age appropriateness.

1.4 Physical Harm

If your app behaves in a way that risks physical harm, we may reject it. For example:

1.4.1 Medical apps that could provide inaccurate data or information, or that could be used for diagnosing or treating patients may be reviewed with greater scrutiny.

- Apps must clearly disclose data and methodology to support accuracy claims relating to health measurements, and if the level of accuracy or methodology cannot be validated, we will reject your app. For example, apps that claim to take x-rays, measure blood pressure, body temperature, blood glucose levels, or blood oxygen levels using only the sensors on the device are not permitted.
- Apps should remind users to check with a doctor in addition to using the app and before making medical decisions.

If your medical app has received regulatory clearance, please submit a link to that documentation with your app.

1.4.2 Drug dosage calculators must come from the drug manufacturer, a hospital, university, health insurance company, pharmacy or other approved entity, or receive approval by the FDA or one of its international counterparts. Given the potential harm to patients, we need to be sure that the app will be supported and updated over the long term.

1.4.3 Apps that encourage consumption of tobacco and vape products, illegal drugs, or excessive amounts of alcohol are not permitted on the App Store. Apps that encourage minors to consume any of these substances will be rejected. Facilitating the sale of controlled substances (except for licensed pharmacies), marijuana, or tobacco is not allowed.

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1.4.4 Apps may only display DUI checkpoints that are published by law enforcement agencies, and should never encourage drunk driving or other reckless behavior such as excessive speed.

1.4.5 Apps should not urge customers to participate in activities (like bets, challenges, etc.) or use their devices in a way that risks physical harm to themselves or others.

1.5 Developer Information

People need to know how to reach you with questions and support issues. Make sure your app and its Support URL include an easy way to contact you; this is particularly important for apps that may be used in the classroom. Failure to include accurate and up-to-date contact information not only frustrates customers, but may violate the law in some countries. Also ensure that Wallet passes include valid contact information from the issuer and are signed with a dedicated certificate assigned to the brand or trademark owner of the pass.

1.6 Data Security

Apps should implement appropriate security measures to ensure proper handling of user information collected pursuant to the Apple Developer Program License Agreement and these Guidelines (see Guideline 5.1 for more information) and prevent its unauthorized use, disclosure, or access by third parties.

2. Performance

2.1 App Completeness

Submissions to App Review, including apps you make available for pre-order, should be final versions with all necessary metadata and fully functional URLs included; placeholder text, empty websites, and other temporary content should be scrubbed before submission. Make sure your app has been tested on-device for bugs and stability before you submit it, and include demo account info (and turn on your back-end service!) if your app includes a login. If you offer in-app purchases in your app, make sure they are complete, up-to-date, and visible to the reviewer, or that you explain why not in your review notes. Please don't treat App Review as a software testing service. We will reject incomplete app bundles and binaries that crash or exhibit obvious technical problems.

2.2 Beta Testing

Demos, betas, and trial versions of your app don't belong on the App Store – use TestFlight instead. Any app submitted for beta distribution via TestFlight should be intended for public distribution and should comply with the App Review Guidelines. Note, however, that apps using TestFlight cannot be distributed to testers in exchange for compensation of any kind, including as a reward for crowd-sourced funding. Significant updates to your beta build should be submitted to TestFlight App Review before being distributed to your testers. To learn more, visit the [TestFlight Beta Testing](#).

2.3 Accurate Metadata

Customers should know what they're getting when they download or buy your app, so make sure all your app metadata, including privacy information, your app description, screenshots, and previews accurately reflect the app's core experience and remember to keep them up-to-date with new versions.

2.3.1 Don't include any hidden, dormant, or undocumented features in your app; your app's functionality should be clear to end users and App Review. All new features, functionality, and product changes must be described with specificity in the Notes for

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Review section of App Store Connect (generic descriptions will be rejected) and accessible for review. Similarly, you should not market your app on the App Store or offline as including content or services that it does not actually offer (e.g. iOS-based virus and malware scanners). Egregious or repeated behavior is grounds for removal from the Developer Program. We work hard to make the App Store a trustworthy ecosystem and expect our app developers to follow suit; if you're dishonest, we don't want to do business with you.

2.3.2 If your app includes in-app purchases, make sure your app description, screenshots, and previews clearly indicate whether any featured items, levels, subscriptions, etc. require additional purchases. If you decide to promote in-app purchases on the App Store, ensure that the in-app purchase Display Name, Screenshot and Description are appropriate for a public audience, that you follow the guidance found in [Promoting Your In-App Purchases](#), and that your app properly handles the [SKPaymentTransactionObserver](#) method so that customers can seamlessly complete the purchase when your app launches.

2.3.3 Screenshots should show the app in use, and not merely the title art, log-in page, or splash screen. They may also include text and image overlays (e.g. to demonstrate input mechanisms, such as an animated touch point or Apple Pencil) and show extended functionality on device, such as Touch Bar.

2.3.4 Previews are a great way for customers to see what your app looks like and what it does. To ensure people understand what they'll be getting with your app, previews may only use video screen captures of the app itself. Stickers and iMessage extensions may show the user experience in the Messages app. You can add narration and video or textual overlays to help explain anything that isn't clear from the video alone.

2.3.5 Select the most appropriate category for your app, and check out the [App Store Category Definitions](#) if you need help. If you're way off base, we may change the category for you.

2.3.6 Answer the age rating questions in App Store Connect honestly so that your app aligns properly with parental controls. If your app is mis-rated, customers might be surprised by what they get, or it could trigger an inquiry from government regulators. If your app includes media that requires the display of content ratings or warnings (e.g. films, music, games, etc.), you are responsible for complying with local requirements in each territory where your app is available.

2.3.7 Choose a unique app name, assign keywords that accurately describe your app, and don't try to pack any of your metadata with trademarked terms, popular app names, pricing information, or other irrelevant phrases just to game the system. App names must be limited to 30 characters. Metadata such as app names, subtitles, screenshots, and previews should not include prices, terms, or descriptions that are not specific to the metadata type. App subtitles are a great way to provide additional context for your app; they must follow our standard metadata rules and should not include inappropriate content, reference other apps, or make unverifiable product claims. Apple may modify inappropriate keywords at any time or take other appropriate steps to prevent abuse.

2.3.8 Metadata should be appropriate for all audiences, so make sure your app and in-app purchase icons, screenshots, and previews adhere to a 4+ age rating even if your app is rated higher. For example, if your app is a game that includes violence, select images that don't depict a gruesome death or a gun pointed at a specific character. Use of terms like "For Kids" and "For Children" in app metadata is reserved for the Kids Category. Remember to ensure your metadata, including app name and icons (small, large, Apple Watch app, alternate icons, etc.), are similar to avoid creating confusion.

2.3.9 You are responsible for securing the rights to use all materials in your app icons, screenshots, and previews, and you should display fictional account information instead of

data from a real person.

2.3.10 Make sure your app is focused on the iOS, Mac, Apple TV or Apple Watch experience, and don't include names, icons, or imagery of other mobile platforms in your app or metadata, unless there is specific, approved interactive functionality. Make sure your app metadata is focused on the app itself and its experience. Don't include irrelevant information, including but not limited to information about Apple or the development process.

2.3.11 Apps you submit for pre-order on the App Store must be complete and deliverable as submitted. Ensure that the app you ultimately release is not materially different from what you advertise while the app is in a pre-order state. If you make material changes to the app (e.g. change business models), you should restart your pre-order sales.

2.3.12 Apps must clearly describe new features and product changes in their "What's New" text. Simple bug fixes, security updates, and performance improvements may rely on a generic description, but more significant changes must be listed in the notes.

2.4 Hardware Compatibility

2.4.1 To ensure people get the most out of your app, iPhone apps should run on iPad whenever possible. We encourage you to consider building universal apps so customers can use them on all of their devices. Learn more about [Universal apps](#).

2.4.2 Design your app to use power efficiently and be used in a way that does not risk damage to the device. Apps should not rapidly drain battery, generate excessive heat, or put unnecessary strain on device resources. For example, apps should not encourage placing the device under a mattress or pillow while charging or perform excessive write cycles to the solid state drive. Apps, including any third-party advertisements displayed within them, may not run unrelated background processes, such as cryptocurrency mining.

2.4.3 People should be able to use your Apple TV app without the need for hardware inputs beyond the Siri remote or third-party game controllers, but feel free to provide enhanced functionality when other peripherals are connected. If you require a game controller, make sure you clearly explain that in your metadata so customers know they need additional equipment to play.

2.4.4 Apps should never suggest or require a restart of the device or modifications to system settings unrelated to the core functionality of the application. For example, don't encourage users to turn off Wi-Fi, disable security features, etc.

2.4.5 Apps distributed via the Mac App Store have some additional requirements to keep in mind:

- (i) They must be appropriately sandboxed, and follow [macOS File System Documentation](#). They should also only use the appropriate macOS APIs for modifying user data stored by other Apps (e.g. bookmarks, Address Book, or Calendar entries).
- (ii) They must be packaged and submitted using technologies provided in Xcode; no third-party installers allowed. They must also be self-contained, single application installation bundles and cannot install code or resources in shared locations.
- (iii) They may not auto-launch or have other code run automatically at startup or login without consent nor spawn processes that continue to run without consent after a user has quit the app. They should not automatically add their icons to the Dock or leave short cuts on the user desktop.
- (iv) They may not download or install standalone apps, kexts, additional code, or resources to add functionality or significantly change the app from what we see during the review process.

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- (v) They may not request escalation to root privileges or use `setuid` attributes.
- (vi) They may not present a license screen at launch, require license keys, or implement their own copy protection.
- (vii) They must use the Mac App Store to distribute updates; other update mechanisms are not allowed.
- (viii) Apps should run on the currently shipping OS and may not use deprecated or optionally installed technologies (e.g. Java)
- (ix) Apps must contain all language and localization support in a single app bundle.

2.5 Software Requirements

2.5.1 Apps may only use public APIs and must run on the currently shipping OS. Learn more about [public APIs](#). Keep your apps up-to-date and make sure you phase out any deprecated features, frameworks or technologies that will no longer be supported in future versions of an OS. Apps should use APIs and frameworks for their intended purposes and indicate that integration in their app description. For example, the HomeKit framework should provide home automation services; and HealthKit should be used for health and fitness purposes and integrate with the Health app.

2.5.2 Apps should be self-contained in their bundles, and may not read or write data outside the designated container area, nor may they download, install, or execute code which introduces or changes features or functionality of the app, including other apps. Educational apps designed to teach, develop, or allow students to test executable code may, in limited circumstances, download code provided that such code is not used for other purposes. Such apps must make the source code provided by the Application completely viewable and editable by the user.

2.5.3 Apps that transmit viruses, files, computer code, or programs that may harm or disrupt the normal operation of the operating system and/or hardware features, including Push Notifications and Game Center, will be rejected. Egregious violations and repeat behavior will result in removal from the Developer Program.

2.5.4 Multitasking apps may only use background services for their intended purposes: VoIP, audio playback, location, task completion, local notifications, etc. If your app uses location background mode, include a reminder that doing so may dramatically decrease battery life.

2.5.5 Apps must be fully functional on IPv6-only networks.

2.5.6 Apps that browse the web must use the appropriate WebKit framework and WebKit Javascript.

2.5.7 Video streaming content over a cellular network longer than 10 minutes must use HTTP Live Streaming and include a baseline 192 kbps HTTP Live stream.

2.5.8 Apps that create alternate desktop/home screen environments or simulate multi-app widget experiences will be rejected.

2.5.9 Apps that alter or disable the functions of standard switches, such as the Volume Up/Down and Ring/Silent switches, or other native user interface elements or behaviors will be rejected. For example, apps should not block links out to other apps or other features that users would expect to work a certain way. Learn more about proper handling of [links](#).

2.5.10 Apps should not be submitted with empty ad banners or test advertisements.

2.5.11 SiriKit and Shortcuts

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(i) Apps integrating SiriKit and Shortcuts should only sign up for intents they can handle without the support of an additional app and that users would expect from the stated functionality. For example, if your app is a meal planning app, you should not incorporate an intent to start a workout, even if the app shares integration with a fitness app.

(ii) Ensure that the vocabulary and phrases in your plist pertains to your app and the Siri functionality of the intents the app has registered for. Aliases must relate directly to your app or company name and should not be generic terms or include third-party app names or services.

(iii) Resolve the Siri request or Shortcut in the most direct way possible and do not insert ads or other marketing between the request and its fulfillment. Only request a disambiguation when required to complete the task (e.g. asking the user to specify a particular type of workout).

2.5.12 Apps using CallKit or including an SMS Fraud Extension should only block phone numbers that are confirmed spam. Apps that include call-, SMS-, and MMS- blocking functionality or spam identification must clearly identify these features in their marketing text and explain the criteria for their blocked and spam lists. You may not use the data accessed via these tools for any purpose not directly related to operating or improving your app or extension (e.g. you may not use, share, or sell it for tracking purposes, creating user profiles, etc.).

2.5.13 Apps using facial recognition for account authentication must use [LocalAuthentication](#) (and not ARKit or other facial recognition technology) where possible, and must use an alternate authentication method for users under 13 years old.

2.5.14 Apps must request explicit user consent and provide a clear visual and/or audible indication when recording, logging, or otherwise making a record of user activity. This includes any use of the device camera, microphone, screen recordings, or other user inputs.

2.5.15 Apps that enable users to view and select files should include items from the Files app and the user's iCloud documents.

2.5.16 App Clips, widgets, extensions, and notifications should be related to the content and functionality of your app. Additionally, all App Clip features and functionality must be included in the main app binary. App Clips cannot contain advertising.

3. Business

There are many ways to monetize your app on the App Store. If your business model isn't obvious, make sure to explain in its metadata and App Review notes. If we can't understand how your app works or your in-app purchases aren't immediately obvious, it will delay your review and may trigger a rejection. And while pricing is up to you, we won't distribute apps and in-app purchase items that are clear rip-offs. We'll reject expensive apps that try to cheat users with irrationally high prices.

If we find that you have attempted to manipulate reviews, inflate your chart rankings with paid, incentivized, filtered, or fake feedback, or engage with third-party services to do so on your behalf, we will take steps to preserve the integrity of the App Store, which may include expelling you from the Developer Program.

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3.1 Payments

3.1.1 In-App Purchase:

- If you want to unlock features or functionality within your app, (by way of example: subscriptions, in-game currencies, game levels, access to premium content, or unlocking a full version), you must use in-app purchase. Apps may not use their own mechanisms to unlock content or functionality, such as license keys, augmented reality markers, QR codes, etc. Apps and their metadata may not include buttons, external links, or other calls to action that direct customers to purchasing mechanisms other than in-app purchase.
- Apps may use in-app purchase currencies to enable customers to “tip” the developer or digital content providers in the app.
- Any credits or in-game currencies purchased via in-app purchase may not expire, and you should make sure you have a restore mechanism for any restorable in-app purchases.
- Apps may enable gifting of items that are eligible for in-app purchase to others. Such gifts may only be refunded to the original purchaser and may not be exchanged.
- Apps distributed via the Mac App Store may host plug-ins or extensions that are enabled with mechanisms other than the App Store.
- Apps offering “loot boxes” or other mechanisms that provide randomized virtual items for purchase must disclose the odds of receiving each type of item to customers prior to purchase.
- Gift cards, certificates, vouchers, and coupons which can be redeemed for digital goods or services can only be sold in your app using in-app purchase.
- Non-subscription apps may offer a free time-based trial period before presenting a full unlock option by setting up a Non-Consumable IAP item at Price Tier 0 that follows the naming convention: “XX-day Trial.” Prior to the start of the trial, your app must clearly identify its duration, the content or services that will no longer be accessible when the trial ends, and any downstream charges the user would need to pay for full functionality. Learn more about managing content access and the duration of the trial period using [Receipts](#) and [Device Check](#).

3.1.2 Subscriptions: Apps may offer auto-renewing in-app purchase subscriptions, regardless of category on the App Store. When incorporating auto-renewable subscriptions into your app, be sure to follow the guidelines below.

3.1.2(a) Permissible uses: If you offer an auto-renewing subscription, you must provide ongoing value to the customer, and the subscription period must last at least seven days and be available across all of the user’s devices. While the following list is not exhaustive, examples of appropriate subscriptions include: new game levels; episodic content; multiplayer support; apps that offer consistent, substantive updates; access to large collections of, or continually updated, media content; software as a service (“SAAS”); and cloud support. In addition:

- Subscriptions may be offered alongside a la carte offerings (e.g. you may offer a subscription to an entire library of films as well the purchase or rental of a single movie).
- You may offer a single subscription that is shared across your own apps and services.
- Games offered in a streaming game service subscription may offer a single subscription that is shared across third-party apps and services; however, they must be downloaded directly from the App Store, must be designed to avoid duplicate payment by a subscriber, and should not disadvantage non-subscriber customers.

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- Subscriptions must work on all of the user's devices where the app is available. Learn more about [sharing a subscription across your apps](#).
- Apps must not force users to rate the app, review the app, download other apps, or other similar actions in order to access functionality, content, or use of the app.
- As with all apps, those offering subscriptions should allow a user to get what they've paid for without performing additional tasks, such as posting on social media, uploading contacts, checking in to the app a certain number of times, etc.
- Subscriptions may include consumable credits, gems, in-game currencies, etc., and you may offer subscriptions that include access to discounted consumable goods (e.g. a platinum membership that exposes gem-packs for a reduced price).
- If you are changing your existing app to a subscription-based business model, you should not take away the primary functionality existing users have already paid for. For example, let customers who have already purchased a "full game unlock" continue to access the full game after you introduce a subscription model for new customers.
- Auto-renewing subscription apps may offer a free trial period to customers by providing the relevant information set forth in App Store Connect.
- Apps that attempt to scam users will be removed from the App Store. This includes apps that attempt to trick users into purchasing a subscription under false pretenses or engage in bait-and-switch and scam practices will be removed from the App Store and you may be removed from the Apple Developer Program. Learn more about [Subscription Free Trials](#).
- Apps that offer auto-renewing music and video subscriptions with prior approval by Apple may also be included in pre-defined bundles with cellular data plans offered in cellular carrier apps.

3.1.2(b) Upgrades and Downgrades: Users should have a seamless upgrade/downgrade experience and should not be able to inadvertently subscribe to multiple variations of the same thing. Review [best practices](#) on managing your subscription upgrade and downgrade options.

3.1.2(c) Subscription Information: Before asking a customer to subscribe, you should clearly describe what the user will get for the price. How many issues per month? How much cloud storage? What kind of access to your service? Ensure you clearly communicate the requirements described in Schedule 2 of the Apple Developer Program License Agreement, found in [Agreements, Tax, and Banking](#).

3.1.3 Other Purchase Methods: The following apps may use purchase methods other than in-app purchase. Apps in this section cannot, either within the app or through communications sent to points of contact obtained from account registration within the app (like email or text), encourage users to use a purchasing method other than in-app purchase.

3.1.3(a) "Reader" Apps: Apps may allow a user to access previously purchased content or content subscriptions (specifically: magazines, newspapers, books, audio, music, and video). Reader apps may offer account creation for free tiers, and account management functionality for existing customers.

3.1.3(b) Multiplatform Services: Apps that operate across multiple platforms may allow users to access content, subscriptions, or features they have acquired in your app on other platforms or your web site, including consumable items in multi-platform games, provided those items are also available as in-app purchases within the app.

3.1.3(c) Enterprise Services: If your app is only sold directly by you to organizations or groups for their employees or students (for example professional databases and classroom

management tools), you may allow enterprise users to access previously-purchased content or subscriptions. Consumer, single user, or family sales must use in-app purchase.

3.1.3(d) Person-to-Person Services: If your app enables the purchase of realtime person-to-person services between two individuals (for example tutoring students, medical consultations, real estate tours, or fitness training), you may use purchase methods other than in-app purchase to collect those payments. One-to-few and one-to-many realtime services must use in-app purchase.

3.1.3(e) Goods and Services Outside of the App: If your app enables people to purchase physical goods or services that will be consumed outside of the app, you must use purchase methods other than in-app purchase to collect those payments, such as Apple Pay or traditional credit card entry.

3.1.3(f) Free Stand-alone Apps: Free apps acting as a stand-alone companion to a paid web based tool (eg. VOIP, Cloud Storage, Email Services, Web Hosting) do not need to use in-app purchase, provided there is no purchasing inside the app, or calls to action for purchase outside of the app.

3.1.4 Hardware-Specific Content: In limited circumstances, such as when features are dependent upon specific hardware to function, the app may unlock that functionality without using in-app purchase (e.g. an astronomy app that adds features when synced with a telescope). App features that work in combination with an approved physical product (such as a toy) on an *optional* basis may unlock functionality without using in-app purchase, provided that an in-app purchase option is available as well. You may not, however, require users to purchase unrelated products or engage in advertising or marketing activities to unlock app functionality.

3.1.5 Cryptocurrencies:

- (i) Wallets: Apps may facilitate virtual currency storage, provided they are offered by developers enrolled as an organization.
- (ii) Mining: Apps may not mine for cryptocurrencies unless the processing is performed off device (e.g. cloud-based mining).
- (iii) Exchanges: Apps may facilitate transactions or transmissions of cryptocurrency on an approved exchange, provided they are offered by the exchange itself.
- (iv) Initial Coin Offerings: Apps facilitating Initial Coin Offerings ("ICOs"), cryptocurrency futures trading, and other crypto-securities or quasi-securities trading must come from established banks, securities firms, futures commission merchants ("FCM"), or other approved financial institutions and must comply with all applicable law.
- (v) Cryptocurrency apps may not offer currency for completing tasks, such as downloading other apps, encouraging other users to download, posting to social networks, etc.

3.1.6 Apple Pay: Apps using Apple Pay must provide all material purchase information to the user prior to sale of any good or service and must use Apple Pay branding and user interface elements correctly, as described in the [Apple Pay Identity Guidelines](#) and [Human Interface Guidelines](#). Apps using Apple Pay to offer recurring payments must, at a minimum, disclose the following information:

- The length of the renewal term and the fact that it will continue until canceled
- What will be provided during each period
- The actual charges that will be billed to the customer
- How to cancel

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3.1.7 Advertising: Display advertising should be limited to your main app executable, and should not be included in extensions, App Clips, widgets, notifications, keyboards, watchOS apps, etc. Ads displayed in an app must be appropriate for the app's age rating, allow the user to see all information used to target them for that ad (without requiring the user to leave the app), and may not engage in targeted or behavioral advertising based on sensitive user data such as health/medical data (e.g. from the HealthKit APIs), school and classroom data (e.g. from ClassKit), or from kids (e.g. from apps in the Kids Category), etc. Interstitial ads or ads that interrupt or block the user experience must clearly indicate that they are an ad, must not manipulate or trick users into tapping into them, and must provide easily accessible and visible close/skip buttons large enough for people to easily dismiss the ad.

3.2 Other Business Model Issues

The lists below are not exhaustive, and your submission may trigger a change or update to our policies, but here are some additional dos and don'ts to keep in mind:

3.2.1 Acceptable

- (i) Displaying your own apps for purchase or promotion within your app, provided the app is not merely a catalog of your apps.
- (ii) Displaying or recommending a collection of third-party apps that are designed for a specific approved need (e.g. health management, aviation, accessibility). Your app should provide robust editorial content so that it doesn't seem like a mere storefront.
- (iii) Disabling access to specific approved rental content (e.g. films, television programs, music, books) after the rental period has expired; all other items and services may not expire.
- (iv) Wallet passes can be used to make or receive payments, transmit offers, or offer identification (such as movie tickets, coupons, and VIP credentials). Other uses may result in the rejection of the app and the revocation of Wallet credentials.
- (v) Insurance apps must be free, in legal-compliance in the regions distributed, and cannot use in-app purchase.
- (vi) Approved nonprofits may fundraise directly within their own apps or third-party apps, provided those fundraising campaigns adhere to all App Review Guidelines and offer Apple Pay support. These apps must disclose how the funds will be used, abide by all required local and federal laws, and ensure appropriate tax receipts are available to donors. Additional information shall be provided to App Review upon request. Nonprofit platforms that connect donors to other nonprofits must ensure that every nonprofit listed in the app has also gone through the nonprofit approval process. Learn more about becoming an [approved nonprofit](#).
- (vii) Apps may enable individual users to give a monetary gift to another individual without using in-app purchase, provided that (a) the gift is a completely optional choice by the giver, and (b) 100% of the funds go to the receiver of the gift. However, a gift that is connected to or associated at any point in time with receiving digital content or services must use in-app purchase.
- (viii) Apps used for financial trading, investing, or money management should come from the financial institution performing such services.

3.2.2 Unacceptable

- (i) Creating an interface for displaying third-party apps, extensions, or plug-ins similar to the App Store or as a general-interest collection.

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- (ii) Monetizing built-in capabilities provided by the hardware or operating system, such as Push Notifications, the camera, or the gyroscope; or Apple services, such as Apple Music access or iCloud storage.
- (iii) Artificially increasing the number of impressions or click-throughs of ads, as well as apps that are designed predominantly for the display of ads.
- (iv) Unless you are an approved nonprofit or otherwise permitted under Section 3.2.1 (vi) above, collecting funds within the app for charities and fundraisers. Apps that seek to raise money for such causes must be free on the App Store and may only collect funds outside of the app, such as via Safari or SMS.
- (v) Arbitrarily restricting who may use the app, such as by location or carrier.
- (vi) Apps should allow a user to get what they've paid for without performing additional tasks, such as posting on social media, uploading contacts, checking in to the app a certain number of times, etc. Apps should not require users to rate the app, review the app, watch videos, download other apps, tap on advertisements, enable tracking, or take other similar actions in order to access functionality, content, use the app, or receive monetary or other compensation, including but not limited to gift cards and codes.
- (vii) Artificially manipulating a user's visibility, status, or rank on other services unless permitted by that service's Terms and Conditions.
- (viii) Apps that facilitate binary options trading are not permitted on the App Store. Consider a web app instead. Apps that facilitate trading in contracts for difference ("CFDs") or other derivatives (e.g. FOREX) must be properly licensed in all jurisdictions where the service is available.
- (ix) Apps offering personal loans must clearly and conspicuously disclose all loan terms, including but not limited to equivalent maximum Annual Percentage Rate (APR) and payment due date. Apps may not charge a maximum APR higher than 36%, including costs and fees, and may not require repayment in full in 60 days or less.

4. Design

Apple customers place a high value on products that are simple, refined, innovative, and easy to use, and that's what we want to see on the App Store. Coming up with a great design is up to you, but the following are minimum standards for approval to the App Store. And remember that even after your app has been approved, you should update your app to ensure it remains functional and engaging to new and existing customers. Apps that stop working or offer a degraded experience may be removed from the App Store at any time.

4.1 Copycats

Come up with your own ideas. We know you have them, so make yours come to life. Don't simply copy the latest popular app on the App Store, or make some minor changes to another app's name or UI and pass it off as your own. In addition to risking an intellectual property infringement claim, it makes the App Store harder to navigate and just isn't fair to your fellow developers.

4.2 Minimum Functionality

Your app should include features, content, and UI that elevate it beyond a repackaged website. If your app is not particularly useful, unique, or "app-like," it doesn't belong on the App Store.

App Store. If your App doesn't provide some sort of lasting entertainment value, it may not be accepted. Apps that are simply a song or movie should be submitted to the iTunes Store. Apps that are simply a book or game guide should be submitted to the Apple Books Store.

4.2.1 Apps using ARKit should provide rich and integrated augmented reality experiences; merely dropping a model into an AR view or replaying animation is not enough.

4.2.2 Other than catalogs, apps shouldn't primarily be marketing materials, advertisements, web clippings, content aggregators, or a collection of links.

4.2.3

- (i) Your app should work on its own without requiring installation of another app to function.
- (ii) Make sure you include sufficient content in the binary for the app to function at launch.
- (iii) If your app needs to download additional resources in order to function on initial launch, disclose the size of the download and prompt users before doing so.

4.2.4 Apple Watch apps that appear to be a watch face are confusing, because people will expect them to work with device features such as swipes, notifications, and third-party complications. Creative ways of expressing time as an app interface is great (say, a tide clock for surfers), but if your app comes too close to resembling a watch face, we will reject it.

4.2.5 Apps that are primarily iCloud and iCloud Drive file managers need to include additional app functionality to be approved.

4.2.6 Apps created from a commercialized template or app generation service will be rejected unless they are submitted directly by the provider of the app's content. These services should not submit apps on behalf of their clients and should offer tools that let their clients create customized, innovative apps that provide unique customer experiences. Another acceptable option for template providers is to create a single binary to host all client content in an aggregated or "picker" model, for example as a restaurant finder app with separate customized entries or pages for each client restaurant, or as an event app with separate entries for each client event.

4.2.7 Remote Desktop Clients: If your remote desktop app acts as a mirror of specific software or services rather than a generic mirror of the host device, it must comply with the following:

- (a) The app must only connect to a user-owned host device that is a personal computer or dedicated game console owned by the user, and both the host device and client must be connected on a local and LAN-based network.
- (b) Any software or services appearing in the client are fully executed on the host device, rendered on the screen of the host device, and may not use APIs or platform features beyond what is required to stream the Remote Desktop.
- (c) All account creation and management must be initiated from the host device.
- (d) The UI appearing on the client does not resemble an iOS or App Store view, does not provide a store-like interface, or include the ability to browse, select, or purchase software not already owned or licensed by the user. For the sake of clarity, transactions taking place within mirrored software do not need to use in-app purchase, provided the transactions are processed on the host device.
- (e) Thin clients for cloud-based apps are not appropriate for the App Store.

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4.3 Spam

Don't create multiple Bundle IDs of the same app. If your app has different versions for specific locations, sports teams, universities, etc., consider submitting a single app and provide the variations using in-app purchase. Also avoid piling on to a category that is already saturated; the App Store has enough fart, burp, flashlight, fortune telling, dating, and Kama Sutra apps, etc. already. We will reject these apps unless they provide a unique, high-quality experience. Spamming the store may lead to your removal from the Developer Program.

4.4 Extensions

Apps hosting or containing extensions must comply with the [App Extension Programming Guide](#) or the [Safari App Extensions Guide](#) and should include some functionality, such as help screens and settings interfaces where possible. You should clearly and accurately disclose what extensions are made available in the app's marketing text, and the extensions may not include marketing, advertising, or in-app purchases.

4.4.1 Keyboard extensions have some additional rules.

They must:

- Provide keyboard input functionality (e.g. typed characters);
- Follow Sticker guidelines if the keyboard includes images or emoji;
- Provide a method for progressing to the next keyboard;
- Remain functional without full network access and without requiring full access;
- Collect user activity only to enhance the functionality of the user's keyboard extension on the iOS device.

They must not:

- Launch other apps besides Settings; or
- Repurpose keyboard buttons for other behaviors (e.g. holding down the "return" key to launch the camera).

4.4.2 Safari extensions must run on the current version of Safari on macOS. They may not interfere with System or Safari UI elements and must never include malicious or misleading content or code. Violating this rule will lead to removal from the Developer Program. Safari extensions should not claim access to more websites than strictly necessary to function.

4.4.3 Stickers

Stickers are a great way to make Messages more dynamic and fun, letting people express themselves in clever, funny, meaningful ways. Whether your app contains a sticker extension or you're creating free-standing sticker packs, its content shouldn't offend users, create a negative experience, or violate the law.

- (i) In general, if it wouldn't be suitable for the App Store, it doesn't belong in a sticker.
- (ii) Consider regional sensitivities, and do not make your sticker pack available in a country where it could be poorly received or violate local law.
- (iii) If we don't understand what your stickers mean, include a clear explanation in your review notes to avoid any delays in the review process.
- (iv) Ensure your stickers have relevance beyond your friends and family; they should not be specific to personal events, groups, or relationships.
- (v) You must have all the necessary copyright, trademark, publicity rights, and permissions for the content in your stickers, and shouldn't submit anything unless you're authorized to do so. Keep in mind that you must be able to provide verifiable documentation upon request. Apps with sticker content you don't have rights to use will

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be removed from the App Store and repeat offenders will be removed from the Developer Program. If you believe your content has been infringed by another provider, [submit a claim here](#).

4.5 Apple Sites and Services

4.5.1 Apps may use approved Apple RSS feeds such as the iTunes Store RSS feed, but may not scrape any information from Apple sites (e.g. apple.com, the iTunes Store, App Store, App Store Connect, developer portal, etc.) or create rankings using this information.

4.5.2 Apple Music

(i) MusicKit on iOS lets users play Apple Music and their local music library natively from your apps and games. When a user provides permission to their Apple Music account, your app can create playlists, add songs to their library, and play any of the millions of songs in the Apple Music catalog. Users must initiate the playback of an Apple Music stream and be able to navigate using standard media controls such as “play,” “pause,” and “skip.” Moreover, your app may not require payment or indirectly monetize access to the Apple Music service (e.g. in-app purchase, advertising, requesting user info, etc.). Do not download, upload, or enable sharing of music files sourced from the MusicKit APIs, except as explicitly permitted in [MusicKit](#) documentation.

(ii) Using the MusicKit APIs is not a replacement for securing the licenses you might need for a deeper or more complex music integration. For example, if you want your app to play a specific song at a particular moment, or to create audio or video files that can be shared to social media, you’ll need to contact rights-holders directly to get their permission (e.g. synchronization or adaptation rights) and assets. Cover art and other metadata may only be used in connection with music playback or playlists (including App Store screenshots displaying your app’s functionality), and should not be used in any marketing or advertising without getting specific authorization from rights-holders. Make sure to follow the [Apple Music Identity Guidelines](#) when integrating Apple Music services in your app.

(iii) Apps that access Apple Music user data, such as playlists and favorites, must clearly disclose this access in the purpose string. Any data collected may not be shared with third parties for any purpose other than supporting or improving the app experience. This data may not be used to identify users or devices, or to target advertising.

4.5.3 Do not use Apple Services to spam, phish, or send unsolicited messages to customers, including Game Center, Push Notifications, etc. Do not attempt to reverse lookup, trace, relate, associate, mine, harvest, or otherwise exploit Player IDs, aliases, or other information obtained through Game Center, or you will be removed from the Developer Program.

4.5.4 Push Notifications must not be required for the app to function, and should not be used to send sensitive personal or confidential information. Push Notifications should not be used for promotions or direct marketing purposes unless customers have explicitly opted in to receive them via consent language displayed in your app’s UI, and you provide a method in your app for a user to opt out from receiving such messages. Abuse of these services may result in revocation of your privileges.

4.5.5 Only use Game Center Player IDs in a manner approved by the Game Center terms and do not display them in the app or to any third party.

4.5.6 Apps may use Unicode characters that render as Apple emoji in their app and app metadata. Apple emoji may not be used on other platforms or embedded directly in [HTML](#).

app binary.

4.6 Alternate App Icons

Apps may display customized icons, for example, to reflect a sports team preference, provided that each change is initiated by the user and the app includes settings to revert to the original icon. All icon variants must relate to the content of the app and changes should be consistent across all system assets, so that the icons displayed in Settings, Notifications, etc. match the new springboard icon. This feature may not be used for dynamic, automatic, or serial changes, such as to reflect up-to-date weather information, calendar notifications, etc.

4.7 HTML5 Games, Bots, etc.

Apps may contain or run code that is not embedded in the binary (e.g. HTML5-based games, bots, etc.), as long as code distribution isn't the main purpose of the app, the code is not offered in a store or store-like interface, and provided that the software (1) is free or purchased using in-app purchase; (2) only uses capabilities available in a standard WebKit view (e.g. it must open and run natively in Safari without modifications or additional software); your app must use WebKit and JavaScript Core to run third-party software and should not attempt to extend or expose native platform APIs to third-party software; (3) is offered by developers that have joined the Apple Developer Program and signed the Apple Developer Program License Agreement; (4) does not provide access to real money gaming, lotteries, or charitable donations; (5) adheres to the terms of these App Review Guidelines (e.g. does not include objectionable content); and (6) does not offer digital goods or services for sale. Upon request, you must provide an index of software and metadata available in your app. It must include Apple Developer Program Team IDs for the providers of the software along with a URL which App Review can use to confirm that the software complies with the requirements above.

4.8 Sign in with Apple

Apps that use a third-party or social login service (such as Facebook Login, Google Sign-In, Sign in with Twitter, Sign In with LinkedIn, Login with Amazon, or WeChat Login) to set up or authenticate the user's primary account with the app must also offer Sign in with Apple as an equivalent option. A user's primary account is the account they establish with your app for the purposes of identifying themselves, signing in, and accessing your features and associated services.

Sign in with Apple is not required if:

- Your app exclusively uses your company's own account setup and sign-in systems.
- Your app is an education, enterprise, or business app that requires the user to sign in with an existing education or enterprise account.
- Your app uses a government or industry-backed citizen identification system or electronic ID to authenticate users.
- Your app is a client for a specific third-party service and users are required to sign in to their mail, social media, or other third-party account directly to access their content.

4.9 Streaming games

Streaming games are permitted so long as they adhere to all guidelines — for example, each game update must be submitted for review, developers must provide appropriate metadata for search, games must use in-app purchase to unlock features or functionality, etc. Of course, there is always the open Internet and web browser apps to reach all users outside of the App Store.

4.9.1 Each streaming game must be submitted to the App Store as an individual app so that it has an App Store product page, appears in charts and search, has user ratings, and

review, can be managed with ScreenTime and other parental control apps, appears on the user's device, etc.

4.9.2 Streaming game services may offer a catalog app on the App Store to help users sign up for the service and find the games on the App Store, provided that the app adheres to all guidelines, including offering users the option to pay for a subscription with in-app purchase and use Sign in with Apple. All the games included in the catalog app must link to an individual App Store product page.

5. Legal

Apps must comply with all legal requirements in any location where you make them available (if you're not sure, check with a lawyer). We know this stuff is complicated, but it is your responsibility to understand and make sure your app conforms with all local laws, not just the guidelines below. And of course, apps that solicit, promote, or encourage criminal or clearly reckless behavior will be rejected. In extreme cases, such as apps that are found to facilitate human trafficking and/or the exploitation of children, appropriate authorities will be notified.

5.1 Privacy

Protecting user privacy is paramount in the Apple ecosystem, and you should use care when handling personal data to ensure you've complied with [privacy best practices](#), applicable laws and the terms of the [Apple Developer Program License Agreement](#), not to mention customer expectations. More particularly:

5.1.1 Data Collection and Storage

(i) Privacy Policies: All apps must include a link to their privacy policy in the App Store Connect metadata field and within the app in an easily accessible manner. The privacy policy must clearly and explicitly:

- Identify what data, if any, the app/service collects, how it collects that data, and all uses of that data.
- Confirm that any third party with whom an app shares user data (in compliance with these Guidelines) — such as analytics tools, advertising networks and third-party SDKs, as well as any parent, subsidiary or other related entities that will have access to user data — will provide the same or equal protection of user data as stated in the app's privacy policy and required by these Guidelines.
- Explain its data retention/deletion policies and describe how a user can revoke consent and/or request deletion of the user's data.

(ii) Permission Apps that collect user or usage data must secure user consent for the collection, even if such data is considered to be anonymous at the time of or immediately following collection. Paid functionality must not be dependent on or require a user to grant access to this data. Apps must also provide the customer with an easily accessible and understandable way to withdraw consent. Ensure your purpose strings clearly and completely describe your use of the data. Apps that collect data for a legitimate interest without consent by relying on the terms of the European Union's General Data Protection Regulation ("GDPR") or similar statute must comply with all terms of that law. Learn more about [Requesting Permission](#).

(iii) Data Minimization: Apps should only request access to data relevant to the core functionality of the app and should only collect and use data that is required to

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accomplish the relevant task. Where possible, use the out-of-process picker or a share sheet rather than requesting full access to protected resources like Photos or Contacts.

(iv) Access: Apps must respect the user's permission settings and not attempt to manipulate, trick, or force people to consent to unnecessary data access. For example, apps that include the ability to post photos to a social network must not also require microphone access before allowing the user to upload photos. Where possible, provide alternative solutions for users who don't grant consent. For example, if a user declines to share Location, offer the ability to manually enter an address.

(v) Account Sign-In: If your app doesn't include significant account-based features, let people use it without a log-in. Apps may not require users to enter personal information to function, except when directly relevant to the core functionality of the app or required by law. If your core app functionality is not related to a specific social network (e.g. Facebook, WeChat, Weibo, Twitter, etc.), you must provide access without a login or via another mechanism. Pulling basic profile information, sharing to the social network, or inviting friends to use the app are not considered core app functionality. The app must also include a mechanism to revoke social network credentials and disable data access between the app and social network from within the app. An app may not store credentials or tokens to social networks off of the device and may only use such credentials or tokens to directly connect to the social network from the app itself while the app is in use.

(vi) Developers that use their apps to surreptitiously discover passwords or other private data will be removed from the Developer Program.

(vii) SafariViewController must be used to visibly present information to users; the controller may not be hidden or obscured by other views or layers. Additionally, an app may not use SafariViewController to track users without their knowledge and consent.

(viii) Apps that compile personal information from any source that is not directly from the user or without the user's explicit consent, even public databases, are not permitted on the App Store.

(ix) Apps that provide services in highly-regulated fields (such as banking and financial services, healthcare, gambling, and air travel) or that require sensitive user information should be submitted by a legal entity that provides the services, and not by an individual developer.

5.1.2 Data Use and Sharing

(i) Unless otherwise permitted by law, you may not use, transmit, or share someone's personal data without first obtaining their permission. You must provide access to information about how and where the data will be used. Data collected from apps may only be shared with third parties to improve the app or serve advertising (in compliance with the [Apple Developer Program License Agreement](#)). You must receive explicit permission from users via the App Tracking Transparency APIs to track their activity. Learn more about [tracking](#). Apps that share user data without user consent or otherwise complying with data privacy laws may be removed from sale and may result in your removal from the Apple Developer Program.

(ii) Data collected for one purpose may not be repurposed without further consent unless otherwise explicitly permitted by law.

(iii) Apps should not attempt to surreptitiously build a user profile based on collected data and may not attempt, facilitate, or encourage others to identify anonymous users or reconstruct user profiles based on data collected from Apple-provided APIs or any data that you say has been collected in an "anonymized," "aggregated," or otherwise non-identifiable way.

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(iv) Do not use information from Contacts, Photos, or other APIs that access user data to build a contact database for your own use or for sale/distribution to third parties, and don't collect information about which other apps are installed on a user's device for the purposes of analytics or advertising/marketing.

(v) Do not contact people using information collected via a user's Contacts or Photos, except at the explicit initiative of that user on an individualized basis; do not include a Select All option or default the selection of all contacts. You must provide the user with a clear description of how the message will appear to the recipient before sending it (e.g. What will the message say? Who will appear to be the sender?).

(vi) Data gathered from the HomeKit API, HealthKit, Clinical Health Records API, MovementDisorder APIs, ClassKit or from depth and/or facial mapping tools (e.g. ARKit, Camera APIs, or Photo APIs) may not be used for marketing, advertising or use-based data mining, including by third parties. Learn more about best practices for implementing [CallKit](#), [HealthKit](#), [ClassKit](#), and [ARKit](#).

(vii) Apps using Apple Pay may only share user data acquired via Apple Pay with third parties to facilitate or improve delivery of goods and services.

5.1.3 Health and Health Research

Health, fitness, and medical data are especially sensitive and apps in this space have some additional rules to make sure customer privacy is protected:

(i) Apps may not use or disclose to third parties data gathered in the health, fitness, and medical research context—including from the Clinical Health Records API, HealthKit API, Motion and Fitness, MovementDisorderAPIs, or health-related human subject research—for advertising, marketing, or other use-based data mining purposes other than improving health management, or for the purpose of health research, and then only with permission. Apps may, however, use a user's health or fitness data to provide a benefit directly to that user (such as a reduced insurance premium), provided that the app is submitted by the entity providing the benefit, and the data is not be shared with a third party. You must disclose the specific health data that you are collecting from the device.

(ii) Apps must not write false or inaccurate data into HealthKit or any other medical research or health management apps, and may not store personal health information in iCloud.

(iii) Apps conducting health-related human subject research must obtain consent from participants or, in the case of minors, their parent or guardian. Such consent must include the (a) nature, purpose, and duration of the research; (b) procedures, risks, and benefits to the participant; (c) information about confidentiality and handling of data (including any sharing with third parties); (d) a point of contact for participant questions; and (e) the withdrawal process.

(iv) Apps conducting health-related human subject research must secure approval from an independent ethics review board. Proof of such approval must be provided upon request.

5.1.4 Kids

For many reasons, it is critical to use care when dealing with personal data from kids, and we encourage you to carefully review all the requirements for complying with laws like the Children's Online Privacy Protection Act ("COPPA"), the European Union's General Data Protection Regulation ("GDPR"), and any other applicable regulations or laws.

Apps may ask for birthdate and parental contact information only for the purpose of complying with these statutes, but must include some useful functionality or entertainment value regardless of a person's age.

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Apps intended primarily for kids should not include third-party analytics or third-party advertising. This provides a safer experience for kids. In limited cases, third-party analytics and third-party advertising may be permitted provided that the services adhere to the same terms set forth in [Guideline 1.3](#).

Moreover, apps in the Kids Category or those that collect, transmit, or have the capability to share personal information (e.g. name, address, email, location, photos, videos, drawings, the ability to chat, other personal data, or persistent identifiers used in combination with any of the above) from a minor must include a privacy policy and must comply with all applicable children's privacy statutes. For the sake of clarity, the [parental gate requirement](#) for the Kid's Category is generally not the same as securing parental consent to collect personal data under these privacy statutes.

As a reminder, [Guideline 2.3.8](#) requires that use of terms like "For Kids" and "For Children" in app metadata is reserved for the Kids Category. Apps not in the Kids Category cannot include any terms in app name, subtitle, icon, screenshots or description that imply the main audience for the app is children.

5.1.5 Location Services

Use Location services in your app only when it is directly relevant to the features and services provided by the app. Location-based APIs shouldn't be used to provide emergency services or autonomous control over vehicles, aircraft, and other devices, except for small devices such as lightweight drones and toys, or remote control car alarm systems, etc. Ensure that you notify and obtain consent before collecting, transmitting, or using location data. If your app uses location services, be sure to explain the purpose in your app; refer to the [Human Interface Guidelines](#) for best practices on doing so.

5.2 Intellectual Property

Make sure your app only includes content that you created or that you have a license to use. Your app may be removed if you've stepped over the line and used content without permission. Of course, this also means someone else's app may be removed if they've "borrowed" from your work. If you believe your intellectual property has been infringed by another developer on the App Store, submit a claim via our [web form](#). Laws differ in different countries, but at the very least, make sure to avoid the following common errors:

5.2.1 Generally: Don't use protected third-party material such as trademarks, copyrighted works, or patented ideas in your app without permission, and don't include misleading, false, or copycat representations, names, or metadata in your app bundle or developer name. Apps should be submitted by the person or legal entity that owns or has licensed the intellectual property and other relevant rights.

5.2.2 Third-Party Sites/Services: If your app uses, accesses, monetizes access to, or displays content from a third-party service, ensure that you are specifically permitted to do so under the service's terms of use. Authorization must be provided upon request.

5.2.3 Audio/Video Downloading: Apps should not facilitate illegal file sharing or include the ability to save, convert, or download media from third-party sources (e.g. Apple Music, YouTube, SoundCloud, Vimeo, etc.) without explicit authorization from those sources. Streaming of audio/video content may also violate Terms of Use, so be sure to check before your app accesses those services. Documentation must be provided upon request.

5.2.4 Apple Endorsements: Don't suggest or imply that Apple is a source or supplier of the App, or that Apple endorses any particular representation regarding quality or functionality. If your app is selected as an "Editor's Choice," Apple will apply the badge automatically.

5.2.5 Apple Products: Don't create an app that appears confusingly similar to an existing Apple product, interface (e.g. Finder), app (such as the App Store, iTunes Store, or Messages) or advertising theme. Apps and extensions, including third-party keyboards, must not

and Sticker packs, may not include Apple emoji. iTunes music previews may not be used for their entertainment value (e.g. as the background music to a photo collage or the soundtrack to a game) or in any other unauthorized manner. If your app displays Activity rings, they should not visualize Move, Exercise, or Stand data in a way that resembles the Activity control. The [Human Interface Guidelines](#) have more information on how to use Activity rings.

5.3 Gaming, Gambling, and Lotteries

Gambling, gaming, and lotteries can be tricky to manage and tend to be one of the most regulated offerings on the App Store. Only include this functionality if you've fully vetted your legal obligations everywhere you make your app available and are prepared for extra time during the review process. Some things to keep in mind:

5.3.1 Sweepstakes and contests must be sponsored by the developer of the app.

5.3.2 Official rules for sweepstakes, contests, and raffles must be presented in the app and make clear that Apple is not a sponsor or involved in the activity in any manner.

5.3.3 Apps may not use in-app purchase to purchase credit or currency for use in conjunction with real money gaming of any kind, and may not enable people to purchase lottery or raffle tickets or initiate fund transfers in the app.

5.3.4 Apps that offer real money gaming (e.g. sports betting, poker, casino games, horse racing) or lotteries must have necessary licensing and permissions in the locations where the App is used, must be geo-restricted to those locations, and must be free on the App Store. Illegal gambling aids, including card counters, are not permitted on the App Store. Lottery apps must have consideration, chance, and a prize.

5.4 VPN Apps

Apps offering VPN services must utilize the [NEVPNManager API](#) and may only be offered by developers enrolled as an organization. You must make a clear declaration of what user data will be collected and how it will be used on an app screen prior to any user action to purchase or otherwise use the service. Apps offering VPN services may not sell, use, or disclose to third parties any data for any purpose, and must commit to this in their privacy policy. VPN apps must not violate local laws, and if you choose to make your VPN app available in a territory that requires a VPN license, you must provide your license information in the App Review Notes field. Parental control, content blocking, and security apps, among others, from approved providers may also use the NEVPNManager API. Apps that do not comply with this guideline will be removed from the App Store and you may be removed from the Apple Developer Program.

5.5 Mobile Device Management

Mobile Device Management Apps that offer Mobile Device Management (MDM) services must request this capability from Apple. Such apps may only be offered by commercial enterprises (such as business organizations, educational institutions, or government agencies), and in limited cases, companies using MDM for parental control services or device security. You must make a clear declaration of what user data will be collected and how it will be used on an app screen prior to any user action to purchase or otherwise use the service. MDM apps must not violate any applicable laws. Apps offering MDM services may not sell, use, or disclose to third parties any data for any purpose, and must commit to this in their privacy policy. In limited cases, third-party analytics may be permitted provided that the services only collect or transmit data about the performance of the developer's MDM app, and not any data about the user, the user's device, or other apps used on that device. Apps offering configuration profiles must also adhere to these requirements. Apps that do not comply with this guideline will be removed from the App Store and you may be removed from the Apple Developer Program.

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5.6 Developer Code of Conduct

Please treat everyone with respect, whether in your responses to App Store reviews, customer support requests, or when communicating with Apple, including your responses in Resolution Center. Do not engage in harassment of any kind, discriminatory practices, intimidation, bullying, and don't encourage others to engage in any of the above.

Customer trust is the cornerstone of the App Store's success. Apps should never prey on users or attempt to rip-off customers, trick them into making unwanted purchases, force them to share unnecessary data, raise prices in a tricky manner, charge for features or content that are not delivered, or engage in any other manipulative practices within or outside of the app.

5.6.1 App Store Reviews

App Store customer reviews can be an integral part of the app experience, so you should treat customers with respect when responding to their comments. Keep your responses targeted to the user's comments and do not include personal information, spam, or marketing in your response.

Use the provided API to prompt users to review your app; this functionality allows customers to provide an App Store rating and review without the inconvenience of leaving your app, and we will disallow custom review prompts.

After You Submit

Once you've submitted your app and metadata in App Store Connect and you're in the review process, here are some things to keep in mind:

- **Timing:** App Review will examine your app as soon as we can. However, if your app is complex or presents new issues, it may require greater scrutiny and consideration. And remember that if your app is repeatedly rejected for the same guideline violation or you've attempted to manipulate the App Review process, review of your app will take longer to complete. Learn more about [App Review](#).
- **Status Updates:** The current status of your app will be reflected in App Store Connect, so you can keep an eye on things from there.
- **Expedite Requests:** If you have a critical timing issue, you can [request an expedited review](#). Please respect your fellow developers by seeking expedited review only when you truly need it. If we find you're abusing this system, we may reject your requests going forward.
- **Release Date:** If your release date is set for the future, the app will not appear on the App Store until that date, even if it is approved by App Review. And remember that it can take up to 24-hours for your app to appear on all selected storefronts.
- **Rejections:** Our goal is to apply these guidelines fairly and consistently, but nobody's perfect. If your app has been rejected and you have questions or would like to provide additional information, please use the Resolution Center to communicate directly with the App Review team. This may help get your app on the store, and it can help us improve the App Review process or identify a need for clarity in our policies. If you still disagree with the outcome, or would like to suggest a change to the guideline itself, please [submit an appeal](#).
- **Appeals:** If you disagree with the outcome of your review, or would like to suggest a change to the guideline itself, please [submit an appeal](#). This may help get your app on the store, and it can help us improve the App Review process or identify a need for clarity in our policies.

- **Bug Fix Submissions:** For apps that are already on the App Store, bug fixes will no longer be delayed over guideline violations except for those related to legal issues. If your app has been rejected, and qualifies for this process, please use the Resolution Center to communicate directly with the App Review team indicating that you would like to take advantage of this process and plan to address the issue in your next submission.

We’re excited to see what you come up with next!

Last Updated: [February 1, 2021](#)

App Store	App Review	App Store Review Guidelines		
Discover	Design	Develop	Distribute	Support
iOS	Human Interface Guidelines	Xcode	Developer Program	Articles
iPadOS	Resources	Swift	App Store	Developer Forums
macOS	Videos	Swift Playgrounds	App Review	Feedback & Bug Reporting
tvOS	Apple Design Awards	TestFlight	Mac Software	System Status
watchOS	Fonts	Documentation	Apps for Business	Contact Us
Safari and Web	Accessibility	Videos	Safari Extensions	Account Certificates, Identifiers & Profiles App Store Connect
Games	Localization	Downloads	Marketing Resources	
Business	Accessories		Trademark Licensing	
Education				
WWDC				

To view the latest developer news, visit [News and Updates](#).

EXHIBIT 12

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UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF CALIFORNIA
OAKLAND DIVISION

EPIC GAMES, INC.

Plaintiff,

v.

APPLE INC.,

Defendant.

Case No. 20-cv-05640-YGR

**DECLARATION OF
TRYSTAN KOSMYNKA**

The Honorable Yvonne Gonzalez Rogers

1 I, Trystan Kosmynka, declare as follows:

2 1. I am employed as Senior Director of App Review at Apple Inc. (“Apple”). In my role
3 as Senior Director of App Review, I run the team and organization that reviews apps submitted for
4 distribution through Apple’s App Store. I am also a member of the Executive Review Board, which
5 creates policies that apply to Apple’s App Store and app review process. I have personal knowledge
6 of the matters stated herein and, if called upon to do so, I could and would testify competently hereto.

7 **Apple’s App Review Guidelines and Review Process**

8 2. Apple is committed to keeping the App Store a safe and trusted place for users to get
9 apps and a great opportunity for all developers to be successful. As part of that commitment, Apple
10 promulgates App Review Guidelines and reviews every app and app update submitted for distribution
11 through the App Store using a rigorous and sophisticated review process. Apple performs
12 computerized static and dynamic analysis, as well as manual human review, on the compiled software,
13 or “binary” file, that a developer submits for App Review, along with metadata including screenshots,
14 images, pricing information, and text describing the app. And if an app contains in-app purchases using
15 Apple’s In-App Purchase (“IAP”), which is part of Apple’s integrated commerce engine, the App
16 Review team reviews every one of those offerings to confirm whether they deliver the good or service
17 that the user pays for and expects. We investigate whether each transaction will actually result in the
18 delivery of the expected content, whether the purchased content is consistent with the overall app, and
19 whether the transaction may have other characteristics that could mark it as a scam or mislead users.

20 3. Apple’s App Review Guidelines are intended to protect users against apps that are
21 malicious, dangerous, offensive, scams, invade user privacy, or contain malware, among other threats
22 that would harm them. We have five pillars of the App Review Guidelines—Safety, Performance,
23 Business Model, Design, and Legal—all of which are evaluated by Apple when reviewing apps. From
24 our perspective, these pillars are key to users knowing what they are getting when they download an
25 app, and how that app will treat their data, before they make the decision to download.

26 4. The Business pillar requires the business model of an app—the way that a developer
27 tries to monetize an app—to be clear. The Guidelines make clear that Apple will not distribute apps
28 and digital products or services that are clear rip-offs. They set out a universal set of rules that require

1 apps selling subscriptions to contain clear and conspicuous pricing and clearly describe what the user
2 will get for that pricing. The Guidelines also are intended to ensure that apps perform the way they are
3 described as performing and protect users against scams. For example, Apple prohibits apps that hold
4 users hostage by refusing to provide paid-for functionality until the user consents to unnecessary data
5 access. Apple also requires that apps offering “loot boxes,” or mechanisms that provide randomized
6 virtual items for purchase, must disclose the odds of receiving each type of item to customers prior to
7 purchase. Nor can credits or in-game currencies purchased via in-app purchase expire under the
8 Guidelines.

9 5. Apple’s App Review Guidelines also seek to protect against invasions of user privacy,
10 by prohibiting apps that attempt to manipulate, trick, or force people to consent to unnecessary data
11 access, or that seek to access data not necessary to accomplish the relevant tasks of the app. The App
12 Store is designed to help users better understand an app’s privacy practices even before they make the
13 decision to download that app onto their device. Every developer is required to submit app privacy
14 labels (which we also refer to colloquially as “nutrition labels”) with every app and app update
15 submitted to the App Store. App privacy labels are intended to inform users what data will be collected
16 from the app and how it will be used.

17 6. Apple holds all apps available in the App Store to a high standard for privacy, security,
18 and content. App Review has detected and prevented acts of fraud, attempted theft, and other ill-
19 intentioned conduct. Apple receives approximately one hundred thousand submissions of apps and
20 app reviews per week, with a yearly total of over 4 million submissions. In 2019, for example, Apple
21 received 4,808,685 submissions. Of those submissions, 1,747,278 were rejected because they did not
22 meet the standards for privacy, security, reliability, performance, and quality set out in Apple’s App
23 Review Guidelines. This amounted to a rejection rate of 36 percent in 2019, which is roughly consistent
24 with the rejection rates for 2017 and 2018. In 2020, the rejection rate rose to around 40 percent.

25 7. In 2020 alone, Apple rejected more than 48,000 apps because they contained hidden or
26 undocumented features, more than 150,000 apps because they were found to be spam, copycats, or
27 misleading to users in ways such as manipulating them into making a purchase, and more than 215,000
28 apps because they contained violations of Apple’s user privacy-protecting Guidelines. Apple also

1 terminated 470,000 developer accounts and rejected an additional 205,000 developer enrollments over
2 fraud concerns, to prevent them from submitting bad apps to the App Store. These efforts complement
3 sophisticated fraud detection techniques that Apple performs on purchases made using Apple's secure
4 commerce engine on the App Store. Apple has been able to identify the use of stolen cards during
5 purchasing and other potentially fraudulent transactions. Apple has published statistics regarding these
6 efforts in the Press Release attached as Exhibit A. Though these efforts, we have built critical trust
7 with users and as a result Apple's brand is synonymous with security, privacy, and reliability.

8 **Guideline 3.1.1 and the Court's Injunction**

9 8. Among Apple's App Review Guidelines is Guideline 3.1.1., which says in its first
10 paragraph: "If you want to unlock features or functionality within your app, (by way of example:
11 subscriptions, in-game currencies, game levels, access to premium content, or unlocking a full version),
12 you must use in-app purchase. Apps may not use their own mechanisms to unlock content or
13 functionality, such as license keys, augmented reality markers, QR codes, etc. Apps and their metadata
14 may not include buttons, external links, or other calls to action that direct customers to purchasing
15 mechanisms other than in-app purchase." I understand that, on September 10, 2021, the Court issued
16 an injunction against Apple relating to this Guideline.

17 9. Since September 10, 2021, Apple has received multiple questions from developers
18 about this injunction and what it means. Developers, including those with previous rejections under
19 Guideline 3.1.1, have been resubmitting or replying to the App Review team to ask how the guidelines
20 are changing or whether they need to continue to comply with Guideline 3.1.1. Their communications,
21 some of which point to news articles, show substantial confusion about the injunction's terms. Many
22 of these developers appear to believe that the injunction prohibits Apple from requiring the use of IAP
23 generally, and instead permits developers to utilize payment mechanisms other than IAP inside their
24 apps. One developer wrote: "I would like to know how (and when) the guidelines are changing in
25 relation to the ruling that Apple must now allow other forms of in-app purchases for apps uploaded to
26 the App Store." Another developer wrote: "now that the new US court ruling allowed developers to
27 have 3rd party payment systems, can we now publish an app that charges money from the users, without
28 adding apple-payment solutions at the beginning?" Still another developer wrote: "Are you suggesting

1 that we still need to implement in-app purchase to get our app approved and it's a compulsory
2 requirement?"

3 10. Along with others at Apple, I am currently studying the effect of the change to Guideline
4 3.1.1 in light of the Court's ruling. At a high level, it is my judgment that, without thoughtful
5 restrictions in place to protect consumers, developers, and the iOS platform, this change will harm
6 users, developers, and the iOS platform more generally.

7 11. Guideline 3.1.1 currently allows Apple to ensure that users who purchase digital goods
8 or services in an app receive what they paid for, on the actual terms that they were informed of and
9 agreed to, and that the payment will occur in a secure manner, protected against fraud and theft of their
10 personal information. The combination of Guideline 3.1.1 and IAP equalizes the playing field for every
11 user and every developer, so that every user knows that any IAP purchase from any developer's app
12 available in the App Store will occur in a safe and verified manner. Guideline 3.1.1 thus has formed
13 one of the backbones of the App Store's protections and been critical to Apple's ability to offer a
14 curated app store environment.

15 12. Apple's IAP offers a secure payment system that protects user payment information and
16 details. It reflects the clear and straightforward disclosure of the price that will be charged for a digital
17 good or service at time of purchase or through subscriptions, as well as notifications when a free trial
18 is about to end and a user is about to be charged. Apple provides many additional services and benefits
19 to customers, many of which are unique to Apple's commerce engine. IAP records sales and creates
20 receipts for those purchases, so purchases can be verified. It enables the completion or restoration of
21 purchases, whether in situations where a user hit the "buy" button for an IAP purchase and the
22 developer did not deliver the content for some technical reason or in situations where a user wants to
23 put an app and in-app-purchased content on a new device. It allows Apple, developers, and users to
24 verify whether a receipt for an IAP purchase is authentic and allows Apple to respond to the hundreds
25 of thousands of reports that we receive every day from users who need help with a developer that has
26 failed to deliver a promised digital good. It facilitates family sharing so that app purchases and services
27 can be shared across family members. It protects users against unintended or fraudulent purchases with
28 a "content check" feature to make sure a user has not made a duplicative purchase, and an "ask to buy"

feature that allows parents to approve or block a child’s in-app purchase. Plus, IAP transactions are monitored by Apple’s anti-fraud technology, to detect and protect against the use of stolen cards in IAP purchases of digital goods and services (including for the purpose of laundering or other illicit purposes).

13. Users who make a payment for digital content thus expect that they are providing their personal and financial information in a secure manner, in exchange for that verified purchase. When users make purchases of digital content in the App Store using IAP, Apple is uniquely positioned to verify the delivery of the content and to provide customer support for the transaction. Conversely, Guideline 3.1.1 does not apply to transactions involving delivery of physical goods and services, in part because Apple has no ability to verify delivery and troubleshoot problems with such purchases.

14. Purchases of digital content and services are also vulnerable to fraudulent manipulation. We have observed social engineering attacks attempted through digital content purchases. The App Review team reviews IAP purchases to screen for such attempts, along with subscription pricing information contained in an app. The App Review team has taken action on many apps that try to defraud or maliciously change pricing information in apps after review. In fact, the specific restrictions in Guideline 3.1.1 have arisen in response to threats detected in apps. With respect to social engineering attacks, some apps have tried to change their subscription pricing after review to make their pricing information opaque or otherwise mislead the user. For example, some developers have stated that the subscription will charge \$1 per day for a year, rather than \$365 per year, in order to conceal the complete cost. Other apps have tried to offer a range of prices for IAP (such as 1 virtual crop, 10 virtual crops, 100 virtual crops, 1000 virtual crops) where one of the prices (often in the middle) is disproportionately higher than the other, with the goal of conditioning the user to quickly pay that disproportionately high price. Still other apps place flashing arrows around the “okay” button or the “allow” button as a way to condition the user to providing a quick permission, or flash a series of pop-up screens requiring a “yes” answer immediately before popping up an IAP purchase screen. Other developers have tried to abuse Apple’s Touch ID functionality by first requiring Touch ID to log into an app, and then immediately surfacing a purchase screen while Touch ID is still operative—and with pricing that is exorbitantly disproportionate to the content to be purchased. And these examples of

malicious apps are not the only time that we have seen developers try to take advantage of user confidence in the safety, security, and reliability of apps offered on the App Store in order to mislead or defraud users. By the same token, there is a risk that bad actors will seek to exploit user expectation that payment mechanisms to which an app directs users (and particularly payment links embedded in an app) would be safe places where users can securely provide their payment, email address, and other personal and contact information.

15. To my knowledge, Apple has never permitted external payment links or other payment mechanisms for the purchase of digital goods and services within an app. External payment mechanisms that operate outside of Apple's secure commerce engine not benefit from Apple's IAP or App Review protections and benefits. When users utilize external payment links, they are thus no longer utilizing a payment mechanism that Apple secures, verifies, and protects from fraud. Apple does not have visibility into the payment transactions and cannot verify that the users actually paid for the good with a valid payment mechanism or received the product or feature that they paid for. Nor can Apple review the purchase offerings for compliance with the App Review Guidelines or conduct anti-fraud monitoring on purchases and payments made on an external website. Apple cannot make sure that there is a clear way to cancel subsequent charges to the payment information entered on an external website. And Apple cannot ensure that an external website protects a user's privacy or payment information, or that it conforms to the app's privacy nutrition labels that the developer submitted to Apple during the App Review process. And even if Apple could check these websites during the review process, Apple cannot prevent developers from, after approval of their app or app update, altering an external website. Not only does this introduce security and privacy risks, but it also means Apple is unable to respond to and provide refunds for users who need help with a developer that has failed to deliver on a promised digital good, as well as the ability to identify and take action to stop fraudulent developers.

16. Steering consumers to external payment mechanisms thus will expose users with much greater frequency to the risks of external payment links and, consequently, lower user confidence in the safety, security, and reliability of digital content purchases and mechanisms. Developers will suffer from this lowered confidence as well, as users will be less inclined to make purchases. More generally,

steering consumers to external payment mechanisms will affect the promise of a curated app store where users know that, when they want to buy a digital good or service in an app, they will actually receive what they paid for and that the payment will occur in a secure manner, protected against fraud and theft of their personal information.

17. In view of these risks, Apple is actively investigating mechanisms for safeguarding users, developers, the App Store, and the iOS platform to the extent possible. Apple's App Store and IAP functionality are deeply integrated into the iOS ecosystem and rely upon and utilize iOS device hardware and software. Apple has continued to work on the development and improvement of IAP into the iOS ecosystem since its roll-out, with a series of systemic changes that each have required significant consideration and time. In fact, Apple just released StoreKit 2, an improved version of the StoreKit API that enables IAP functionality, after extensive work and time. StoreKit 2 improves the security of purchases, from the way that developers can resolve purchase issues, to the way that users can request refunds and manage their individual app subscriptions.

18. If users can be steered to external payment mechanisms, we will have to consider the impact on the layers of protection that IAP offers: protections such as "Ask to Buy" feature and parental controls for apps for children, the way in which Face ID or Touch ID can be used to authorize a purchase in all apps, and the way that purchases can be completed and restored on a user's devices, among others. It will require substantial engineering and other changes to the App Store, to App Review and its tools, and to all of platforms and devices that interact with and rely upon the App Store. Indeed, we have previously had to make engineering changes to the operating system along with Guideline changes in response to risks that have been detected in apps. In addition, we have to consider customer service features such as the current refund and dispute resolution mechanisms for addressing complaints by users and developers about failed delivery content and fraudulent purchases. Plus we have to evaluate whether potential new Guidelines and other protective features have to be developed for the App Store. All of this is in addition to the development of new App Review processes and computer tools to account for the new risks. Ultimately, these questions require consideration of the very security concerns that Apple has combatted with the use of IAP and the way in which users interact

1 with their devices—all of which will impact the trust and confidence that users currently hold in the
2 App Store.

3 * * *

4 I declare under penalty of perjury under the laws of the United States of America that the
5 foregoing is true and correct.

6 Executed on October 8, 2021 at San Jose, California.

7
8 By:  _____

9 Trystan Kosmyinka
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EXHIBIT 13

**UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
OAKLAND DIVISION**

Donald R. Cameron, et al.,

Plaintiffs,

v.

Apple Inc.,

Defendant.

Case No. 4:19-cv-03074-YGR

The Honorable Yvonne Gonzalez Rogers

STIPULATION OF SETTLEMENT

SETTLEMENT AGREEMENT AND RELEASE

The Parties, by and through their respective counsel, in consideration for and subject to the promises, terms, and conditions contained in this Settlement Agreement, hereby warrant, represent, acknowledge, covenant, stipulate and agree, subject to Court approval pursuant to Rule 23 of the Federal Rules of Civil Procedure, as follows:

1. DEFINITIONS

As used herein the following terms have the meanings set for below:

1.1 “Action” shall mean the litigation styled Donald R. Cameron, Pure Sweat Basketball, Inc., and Barry Sermons, on behalf of themselves and all others similarly situated v. Apple Inc., Case No. 4:19-cv-03074-YGR, filed in the United States District Court for the Northern District of California (the “Court”).

1.2 “Apple” means Apple Inc.

1.3 “Approved Claims” means those Claims which are approved by the Settlement Administrator for payment.

1.4 “Associated Developer Accounts” means any U.S. Apple Developer Program account that an individual or legal entity owns or controls, or any U.S. Apple Developer Program account that owns or controls a given individual’s or legal entity’s account.

1.5 “Attorneys’ Fees” means any award of attorneys’ fees, costs, and expenses of any kind or description incurred by Class Counsel or other attorneys, experts, consultants, or agents of the Named Plaintiffs or the Settlement Class.

1.6 “Claim Form” means the proof of claim and release form(s) in a form mutually agreeable to the parties, to be attached as an exhibit to the Motion for Preliminary Approval.

1.7 “Claim” means any claim submitted by a Settlement Class Member.

1.8 “Claims Period” means the period between the Notice Date until the deadline set forth in paragraph 7.4.

1.9 “Class Counsel” means the law firm of Hagens Berman Sobol Shapiro LLP, who has any and all authority and capacity necessary to execute this Settlement Agreement and bind all of the Named Plaintiffs who have not personally signed this Settlement Agreement, as if each of those individuals had personally executed this Settlement Agreement.

1.10 “Class Notice” means the Notice of Pendency and Proposed Settlement of Class Action in a form mutually agreeable to the parties, to be attached as an exhibit to the Motion for Preliminary Approval.

1.11 “Court” means the United States District Court for the Northern District of California.

1.12 “Defense Counsel” means the law firm of Gibson, Dunn & Crutcher LLP.

1.13 “Developer” means a person or entity who has registered for a Developer Program Account with Apple, and shall include all Associated Developer Accounts. A “U.S. Developer” means a Developer who self-identified as U.S.-based when registering for the Developer Program.

1.14 “Effective Date” shall mean the first day after which all of the following events and conditions of this Settlement Agreement have been met or occurred:

- (a) Apple, Class Counsel, and Defense Counsel have executed this Settlement Agreement;
- (b) The Court has conditionally certified the Settlement Class, preliminarily approved the Settlement, and approved notice to the Settlement Class;
- (c) The time period for members of the Settlement Class to exclude themselves has expired;
- (d) The Settlement Administrator has delivered the spreadsheet(s) and information to Defense Counsel and Class Counsel as specified in Section 7.9 and 7.10;
- (e) All disputed Claims have been resolved;
- (f) The Court has entered the Final Approval Order and Final Judgment;
- (g) The time for appeal or writ of the Final Approval Order and Final Judgment has expired or, if an appeal and/or petition for review is taken and the Settlement is affirmed, the time period during which further petition for hearing, appeal, or writ of certiorari can be taken has expired;
- (h) The time for appeal or writ of any order regarding Attorneys’ Fees and Expenses and/or Named Plaintiff Service Awards has expired or, if an appeal and/or petition for review is taken and the order is affirmed, the

time period during which further petition for hearing, appeal, or writ of certiorari can be taken has expired;

(i) The Action is dismissed with prejudice and a final judgment is entered;

and

(j) The time for appeal or writ of the final judgment in the Action has expired or, if an appeal and/or petition for review is taken and the dismissal is affirmed, the time period during which further petition for hearing, appeal, or writ of certiorari can be taken has expired.

1.15 “Final Approval Order and Final Judgment” means the final approval order and judgment dismissing and closing the Action.

1.16 “Final Hearing” means the hearing(s) held by the Court to consider and determine whether the requirements for certification of the Settlement Class have been met and whether the Settlement should be approved as fair, reasonable, and adequate; whether Class Counsel’s Attorneys’ Fees should be approved; and whether the Final Approval Order and Final Judgment should be entered. The Final Hearing may, from time to time and without further notice to the Settlement Class (except those who have filed timely and valid objections and requested to speak at the Final Hearing), be continued or adjourned by order of the Court.

1.17 “Named Plaintiffs” means Donald R. Cameron and Pure Sweat Basketball, Inc.

1.18 “Net Small Developer Assistance Fund” means the Small Developer Assistance Fund, reduced by the sum of the following amounts: (1) the costs of notice and the costs of administering the Settlement, as set forth in Sections 7.1 and 7.2 below; (2) any Attorneys’ Fees (which may include separate awards for fees and expenses) to Class Counsel, as set forth in

Sections 9.1 and 9.2 below; and (3) any Service Awards provided to Named Plaintiffs with the authorization of the Court.

1.19 “Notice Date” means the date set forth in the Preliminary Approval Order for commencing the transmission of the Email Notice.

1.20 “Parties” means Apple and the Named Plaintiffs.

1.21 “Proceeds” means a Developer’s net revenues on the U.S. App Store storefront, after subtracting out any commission paid to Apple.

1.22 “Preliminary Approval Order” means an order preliminarily approving the Settlement, providing for notice to the Settlement Class, and preliminarily approving a proposed disposition of the Small Developer Assistance Fund.

1.23 “Released Parties” means (a) Apple and its past, present, and future parents, subsidiaries, affiliates, divisions, joint ventures, licensees, franchisees, and any other legal entities, whether foreign or domestic, that are owned or controlled by Apple; and (b) the past, present, and future shareholders, officers, directors, members, agents, employees, independent contractors, consultants, administrators, representatives, fiduciaries, insurers, predecessors, successors, and assigns of the entities in part (a) of this paragraph.

1.24 “Service Award” means a payment from the Small Developer Assistance Fund to either or both of the two Named Plaintiffs, in an amount not to exceed \$5,000.00, in recognition of their service in prosecuting this action as developer businesses, exclusive of any other payments to which they might be entitled under this Agreement, if approved by the Court.

1.25 “Settlement” and “Settlement Agreement” mean the settlement described in this Stipulation of Settlement.

1.26 “Settlement Administrator” means Angeion Group, which shall provide settlement notice and administration services pursuant to the terms of this Settlement Agreement.

1.27 “Settlement Class” means all former or current U.S. Developers of any Apple iOS application or in-app product (including subscriptions) sold for a non-zero price via Apple’s iOS App Store that earned, through all Associated Developer Accounts, Proceeds equal to or less than \$1,000,000.00 through the App Store U.S. storefront in every calendar year in which the U.S. Developer had a Developer Account between June 4, 2015 to the date of this Agreement. For class definition purposes, the 2015 calendar year shall consist of June 4, 2015 through December 31, 2015. The 2021 calendar year shall consist of January 1, 2021 through April 26, 2021, the last date in 2021 for which there are available developer transactional data as produced in this Action. Additionally, excluded from the Settlement Class are (a) directors, officers, and employees of Apple or its subsidiaries and affiliated companies, as well as Apple’s legal representatives, heirs, successors, or assigns, (b) the Court, the Court staff, as well as any appellate court to which this matter is ever assigned and its staff, (c) Defense Counsel, as well as their immediate family members, legal representatives, heirs, successors, or assigns, (d) any Developers who validly request exclusion (“opt out”) from the Settlement Class, and (e) any other individuals whose claims already have been adjudicated to a final judgment.

1.28 “Settlement Class Member” means and includes every member of the Settlement Class who does not validly and timely request exclusion (“opt out”) from the Settlement Class.

1.29 “Small Developer Assistance Fund” means a non-reversionary cash fund total of \$100,000,000.00 to be paid by Apple and administered by the Settlement Administrator in accordance with the terms of this Settlement Agreement.

1.30 “Settlement Website” means an Internet website that the Settlement Administrator shall establish to inform the Settlement Class of the terms of this Settlement, their rights, dates, deadlines, and related information.

1.31 “Summary Notice” means the Summary Notice of Settlement in a form mutually agreeable to the parties, to be attached as an exhibit to the Motion for Preliminary Approval.

2. RECITALS

This Agreement is made for the following purposes and with reference to the following facts:

2.1 On June 4, 2019, plaintiffs Donald Cameron and Pure Sweat Basketball, Inc. filed the first complaint in the Action in the United State District Court for the Northern District of California. On September 30, 2019, Named Plaintiffs filed a Consolidated Amended Complaint. The Consolidated Amended Complaint alleged that Apple had monopolized an alleged iOS app and in-app-product distribution services market in violation of Section 2 of the Sherman Act; that Apple had attempted to monopolize an alleged iOS app and in-app-product distribution services market in violation of Section 2 of the Sherman Act; and that Apple’s conduct violated Section 17200 of the California Business and Professions Code.

2.2 The Parties engaged in extensive discovery in the Action, which was consolidated with *Epic v. Apple Inc.*, Case No. 4:20-CV-05640-YGR, and *In re Apple iPhone Antitrust Litigation*, Case No. 4:11-cv-06714-YGR, for purposes of discovery. Apple produced more than 20 million pages of documents and the Parties deposed almost 50 individuals.

2.3 On January 1, 2021, Apple introduced the App Store Small Business Program (“SBP”). The structure and timing of the SBP was driven by Apple’s desire to accelerate innovation and help propel small businesses forward with the next generation of groundbreaking

apps on the App Store, in light of the Coronavirus pandemic. Apple also acknowledges that the pendency of this lawsuit was a factor in its decision to adopt the SBP. Under the Small Business Program:

- Existing developers who made up to \$1,000,000.00 in proceeds in 2020 for all their apps, as well as developers new to the App Store, can qualify for the program and a reduced commission rate of fifteen percent (15%) on paid apps and in-app purchases.
- If a participating developer surpasses the \$1,000,000.00 threshold, Apple's standard commission rate will apply to future sales.
- If a developer's proceeds fall below the \$1,000,000.00 threshold in a future calendar year, they can requalify for the fifteen percent (15%) commission the year after.
- Developers must identify any Associated Developer Accounts to determine proceeds eligibility.

2.4 On June 1, 2021, Named Plaintiffs filed a motion for class certification in the Action, seeking certification of a class of all U.S. developers of any Apple iOS application or in-app product (including subscriptions) sold for a non-zero price via Apple's iOS App Store at any time on or after June 4, 2015. On August 10, 2021, Apple filed its opposition to Plaintiffs' motion for class certification, along with a motion to exclude Plaintiffs' experts and a motion to compel a trial plan.

2.5 The Parties engaged in extensive, arm's-length negotiations over the course of the Action, with the assistance of the Hon. Layn R. Phillips (Ret.) of Phillips ADR, a former United States District Court Judge and one of the most experienced mediators in the United States. As a

result of these arm's-length negotiations, the Parties reached the Settlement set forth in this Settlement Agreement, which memorializes the Parties' agreement. The Parties intend that this Settlement completely resolve any and all claims that were, or could have been, asserted in the Action on behalf of the Settlement Class.

2.6 Apple vigorously disputes the claims alleged in the Action and is entering into this Settlement to avoid burdensome and costly litigation. The Settlement is not an admission of wrongdoing, fault, liability, or damage of any kind. Among other things, Apple disputes that Named Plaintiffs' claims have merit, that Named Plaintiffs will be able to certify any class in this Action for litigation purposes, and that Named Plaintiffs and the putative class would be entitled to any relief. Without admitting any of the allegations made in the Action or any liability whatsoever, Apple is willing to enter into this Settlement solely in order to eliminate the burdens, distractions, expense and uncertainty of protracted litigation and in order to obtain the releases and final judgment contemplated by this Settlement, and to provide additional assistance to the small developer community that is an integral part of the iOS ecosystem.

2.7 Class Counsel and the Named Plaintiffs believe that the claims asserted in the Action have merit and have examined and considered the benefits to be obtained under this Settlement, the risks associated with the continued prosecution of this complex and potentially time-consuming litigation, and the likelihood of ultimate success on the merits, and have concluded that the Settlement is fair, adequate, reasonable and in the best interests of the Settlement Class.

2.8 The Parties desire to settle the Action in its entirety with respect to all potential claims arising out of the same facts alleged in the complaints filed in the Action. The Parties

intend this Settlement Agreement to bind Apple, the Named Plaintiffs, and all other Settlement Class Members.

3. CONFIDENTIALITY

3.1 The Parties must comply with all portions of the Stipulated Protective Order (Dkt. 252) (as well as all Supplemental Protective Orders entered in the Action), including but not limited to Section 14 of the Stipulated Protective Order, which requires the return, destruction, or deletion of Protected Material (as defined in the Protective Order) within sixty (60) days of the final disposition of the Action.

3.2 This Settlement Agreement and its terms, including the fact of the proposed Settlement, shall remain completely confidential until all documents are executed and the Motion for Preliminary Approval is filed with the Court. Pending the filing of that Motion, Class Counsel may disclose this Settlement Agreement and its terms to their respective clients and experts as necessary for the implementation of this Settlement Agreement, who will also maintain the complete confidentiality of this Settlement Agreement and its terms, including the fact of the proposed Settlement.

4. CERTIFICATION OF THE SETTLEMENT CLASS

4.1 The Parties stipulate and agree that, subject to Court approval, the Settlement Class should be conditionally certified pursuant to Rule 23(b)(3) of the Federal Rules of Civil Procedure solely for purposes of the Settlement embodied in this Settlement Agreement. If, for any reason, this Settlement Agreement is not approved by the Court, the stipulation for certification and all of the agreements contained herein shall be considered null and void as provided in Section 8.5.

4.2 Apple does not consent to certification of the Settlement Class (or to the propriety of class treatment) for any purpose other than to effectuate this Settlement. For the avoidance of

doubt, Apple does not agree that this (or any) class of Developers could be certified for litigation purposes or that a trial of these claims would be manageable. Apple's agreement to provisional certification for purposes of settlement does not constitute an admission of wrongdoing, fault, liability, or damage of any kind, or that any class certification would be appropriate for litigation or any other purpose other than to effectuate this Settlement.

4.3 If for any reason the Effective Date does not occur or this Settlement Agreement is terminated, disapproved by any court (including any appellate court), or not consummated for any reason, the order certifying the Settlement Class for purposes of effectuating the Settlement (and all preliminary and final findings regarding that class certification order) shall be automatically vacated upon notice of the same to the Court. The Action shall then proceed as though the Settlement Class had never been certified pursuant to this Settlement Agreement and such findings had never been made, and the Action shall return to their procedural postures on the date this Settlement Agreement was signed. Additionally, the Parties and their counsel shall not contend that certification (or agreement to certification) of the Settlement Class supports certification of any litigation class if this Settlement Agreement is not consummated and the Action is later litigated and certification is contested by Apple under Rule 23 or any equivalent statute or rule.

5. SETTLEMENT CONSIDERATION

5.1 **Structural Relief.** In consideration of the releases and dismissals set forth in this Settlement Agreement, subject to Court approval, and subject to the other terms and conditions of this Settlement Agreement, Apple agrees that for a period of at least three (3) years following the Final Approval Order, Apple shall:

5.1.1 Maintain a commission rate of no greater than fifteen percent (15%) for U.S.

Developers who are enrolled participants in the Small Business Program,

pursuant to the terms and conditions of the Small Business Program and subject to program participation requirements.

5.1.2 Continue to drive App Store search results primarily by objective characteristics, including but not limited to downloads, star ratings, text relevance, and user behavior signals. Apple may also continue to include apps based on other characteristics, such as similar goals or developer association, as well as to give new and high-quality apps a chance to be found. Apple will also continue to conduct robust experimentation to drive continuous improvement.

5.1.3 Permit all U.S. Developers to communicate with their customers via email and other communication services outside their app about purchasing methods other than in-app purchase, provided that the customer consents to the communication and has the right to opt out. In-app communications, including via Apple Push Notification service, are outside the scope of this provision. Apple will revise its App Store Guidelines to permit the foregoing for all app categories, including by deleting from Guideline 3.1.3 the following language: “Developers cannot use information obtained within the app to target individual users outside of the app to use purchasing methods other than in-app purchase (such as sending an individual user an email about other purchasing methods after that individual signs up for an account within the app).”

5.1.4 Expand the choice of price points for subscriptions, in-app purchases, and paid apps from fewer than 100 to more than 500 (by December 31, 2022).

5.1.5 Maintain the option for U.S. Developers to appeal the rejection of an app based on unfair treatment and add online content to the app review portion of Apple’s developer website (<https://developer.apple.com/app-store/review/>) to explicitly note that a developer can appeal the rejection of an app when the developer believes that there has been unfair treatment by Apple in the review of any of the U.S. Developer’s apps, in-app products, or updates.

5.1.6 Publish an annual transparency report that, at a minimum, will convey meaningful statistics such as the number of apps rejected for different reasons, the number of customer and developer accounts deactivated, objective data regarding search queries and results, and the number of apps removed from the App Store.

5.2 **Covenant Not to Sue.** The members of the Settlement Class expressly agree to the appropriateness of Apple’s commission structure, including but not limited to the Small Business Program, as it applies to the Settlement Class. In light of the structural and monetary relief afforded by Apple pursuant to this Settlement Agreement, the members of the Settlement Class covenant not to sue Apple on any claim that was or could have been asserted in the Action.

5.3 **Small Developer Assistance Fund.** In light of the contributions made by Settlement Class Members to the app economy, particularly as the economy continues to suffer the effects of the Coronavirus pandemic, and in further consideration of the releases and dismissals set forth in this Settlement Agreement, subject to Court approval, and subject to the other terms and conditions of this Settlement Agreement, Apple shall establish a Small Developer Assistance Fund (“Small Developer Assistance Fund”).

5.3.1 Within thirty (30) days after an Order granting Preliminary Approval, Apple shall transfer \$2,000,000.00 into an account established by the Settlement Administrator for payment of the costs of settlement administration. Within thirty (30) days after the Effective Date, Apple shall transfer \$98,000,000.00 into an account established by the Settlement Administrator for the Small Developer Assistance Fund. Apple's total financial commitment under this Settlement Agreement shall be \$100,000,000.00.

5.3.2 The Settlement Administrator shall agree to hold the Small Developer Assistance Fund in an interest-bearing account and administer the Small Developer Assistance Fund, subject to the continuing jurisdiction of the Court and from the earliest possible date, as a qualified settlement fund as defined in Treasury Regulation § 1.468B-1 et seq. Any taxes owed by the Small Developer Assistance Fund shall be paid by the Settlement Administrator out of the Small Developer Assistance Fund. The interest earned in the aforementioned account shall be added to the Small Developer Assistance Fund.

6. DISPOSITION OF THE SMALL DEVELOPER ASSISTANCE FUND

6.1 The Small Developer Assistance Fund shall be applied as follows:

- 6.1.1 to pay the costs of notice and the costs of administering the Settlement, as set forth in Section 7 below;
- 6.1.2 to pay any approved Attorneys' Fees to Class Counsel as set forth in Section 9 below;
- 6.1.3 to pay any Court-approved Service Awards to Named Plaintiffs; and

6.1.4 to distribute the Net Small Developer Assistance Fund to Settlement Class Members as set forth in Section 6.2 and 6.3 below.

6.2 The Small Developer Assistance Fund will be distributed to all Settlement Class Members who have Approved Claims, with each such U.S. Developer entitled to a minimum payment of \$250.00 from the Net Small Developer Assistance Fund. U.S. Developers may qualify for a higher payment based on their historic participation in the App Store ecosystem. For all Approved Claims, the following amounts will be calculated based on Settlement Class Members' Proceeds from June 4, 2015 to December 31, 2020:

- 6.2.1 A Settlement Class Member who earned Proceeds of no more than \$100.00 from all of their Associated Developer Accounts will receive a minimum payment of \$250.00.
- 6.2.2 A Settlement Class Member who earned Proceeds of between \$100.01 and \$1,000.00 from all of their Associated Developer Accounts will receive a minimum payment of \$500.00.
- 6.2.3 A Settlement Class Member who earned Proceeds of between \$1,000.01 and \$5,000.00 from all of their Associated Developer Accounts will receive a minimum payment of \$1,000.00.
- 6.2.4 A Settlement Class Member who earned Proceeds of between \$5,000.01 and \$10,000.00 from all of their Associated Developer Accounts will receive a minimum payment of \$1,500.00.

- 6.2.5 A Settlement Class Member who earned Proceeds of between \$10,000.01 and \$50,000.00 from all of their Associated Developer Accounts will receive a minimum payment of \$2,000.00.
 - 6.2.6 A Settlement Class Member who earned Proceeds of between \$50,000.01 and \$100,000 from all of their Associated Developer Accounts will receive a minimum payment of \$3,500.00.
 - 6.2.7 A Settlement Class Member who earned Proceeds of between \$100,000.01 and \$250,000.00 from all of their Associated Developer Accounts will receive a minimum payment of \$5,000.00.
 - 6.2.8 A Settlement Class Member who earned Proceeds of between \$250,000.01 and \$500,000.00 from all of their Associated Developer Accounts will receive a minimum payment of \$10,000.00.
 - 6.2.9 A Settlement Class Member who earned Proceeds of between \$500,000.01 and \$1,000,000.00 from all of their Associated Developer Accounts will receive a minimum payment of \$20,000.00.
 - 6.2.10 A Settlement Class Member who earned Proceeds of over \$1,000,000.01 from all of their Associated Developer Accounts will receive a minimum payment of \$30,000.00.
- 6.3 The minimum payment amounts set forth in Section 6.2 above assume that one hundred percent (100%) of Settlement Class Members have an Approved Claim. If not all Settlement Class Members have an Approved Claim, then the minimum payment amounts to Settlement Class Members with Approved Claims shall increase

proportionally in correspondence with the same categories of Developer Proceeds as contained in Section 6.2.

- 6.4 The minimum payment amounts set forth in Section 6.2 above assume that the Net Small Developer Assistance Fund is approximately \$68 million. The actual amount could be greater or less depending on the costs of administration, any Service Awards, and the amounts awarded by the Court for attorneys' fees and expenses pursuant to Section 9.1.
- 6.5 Within sixty (60) days after receiving the Small Developer Assistance Funds pursuant to Section 5.3, the Settlement Administrator shall have substantially completed the issuance of the initial payments to the Settlement Class Members with Approved Claims, which shall be sent to Settlement Class Members through electronic distribution, or in the form of physical checks mailed to the Settlement Class Member's mailing address as contained in Apple's company records or set forth on the Claim Form for those Settlement Class Members for whom electronic distribution is not available. To the extent economically and practically feasible, the Settlement Administrator shall follow up and communicate with Settlement Class Members who have not cashed their checks within sixty (60) days of distribution. Unused checks shall expire not later than the first anniversary of the initial date of distribution.
- 6.6 Following distribution of the Small Developer Assistance Fund as set forth in Sections 6.1-6.3, if approved by the Court, any remaining funds (including any funds from uncashed checks) will be used as a *cy pres* distribution to Girls Who Code, a nonprofit organization working to close the gender gap in technology and to change the image of what a programmer looks like and does, or another similar charitable organization

as approved by the Court. Under no circumstances will Small Developer Assistance Funds revert to Apple.

7. NOTICE AND SETTLEMENT ADMINISTRATION.

7.1 **Neutral Settlement Administrator.** Subject to Court approval, the Settlement Administrator shall provide settlement notice and administration services, in accordance with the terms of this Settlement Agreement and as ordered by the Court in the Preliminary Approval Order. As provided in Section 6.1.1, the reasonable costs of notice and the costs of administering the Settlement shall be paid out of the Small Developer Assistance Fund.

7.2 **Notice Procedures.** The Parties agree to the following forms and methods of notice to the Settlement Class:

7.2.1 A copy of the Class Notice, together with the Claim Form, the Settlement, the motions for Final Approval Order and Final Judgment, and Attorneys' Fees, and Court orders pertaining to the Settlement, shall be posted and available for download on the Settlement Website maintained by the Settlement Administrator.

7.2.2 The Settlement Administrator shall send a copy of the Summary Notice to the email and physical addresses for Associated Developer Accounts of developers who are or reasonably may be members of the Settlement Class. The electronic version of the Summary Notice shall contain a direct link to the Settlement Website and the instructions for the Claim Form. To facilitate the distribution of the Summary Notice, within thirty (30) days of the date of execution of the Settlement Agreement, Apple shall provide the Settlement Administrator with the email and physical addresses for Associated Developer Accounts of

developers who are or reasonably may be members of the Settlement Class, along with transactional data produced in this Action sufficient to calculate Proceeds for purposes of implementing this Agreement.

- 7.2.3 The names, email addresses, physical mailing addresses, and Proceeds of Associated Developer Accounts are personal information about the potential members of the Settlement Class and shall be provided to the Settlement Administrator solely for the purposes of providing notice, processing requests for exclusion, and administering payment. The Settlement Administrator shall execute the Stipulated Protective Order (Dkt. 252), treat all such information as “Highly Confidential – Attorneys’ Eyes Only,” and take all reasonable steps to ensure that all such information is used solely for the purpose of administering this Settlement.
- 7.2.4 The Settlement Administrator shall commence the notice by the Notice Date. If, despite using best efforts, the Settlement Administrator is unable to commence the notice by the Notice Date, the Settlement Administrator shall inform the Parties of the status of the notice, and notify the Parties when the notice has been commenced.
- 7.2.5 In addition to the notice required by the Court, the Parties may jointly agree to provide additional notice to the members of the Settlement Class, although Class Counsel and Apple must both approve any additional notice.
- 7.2.6 If this notice plan is not approved, or is modified in a material way by the Court, the Parties shall have the right to terminate the Settlement.

7.3 Claim Form. Settlement Class Members who wish to receive a cash payment will be required to submit a Claim Form. The Claim Form shall, among other things, require the Settlement Class Member to certify, under penalty of perjury, that (a) they have only one Associated Developer Account, or (b) if they have more than one Associated Developer Account, that they have identified all Associated Developer Accounts in a manner to be specified in the Claim Form. The Claim Forms shall be submitted to the Settlement Administrator via U.S. mail or electronically through the Settlement Website.

7.4 Claims Period. To be valid, Claim Forms, requests to opt out, and objections must be received by the Settlement Administrator within one hundred and twenty (120) days from the Notice Date.

7.5 Process for Opting Out of Settlement. The Class Notice shall provide a procedure whereby members of the Settlement Class may exclude themselves from the Settlement. The members of the Settlement Class shall have no less than sixty (60) days following the Notice Date to exclude themselves. Any member of the Settlement Class who does not timely and validly request exclusion shall be a Settlement Class Member and shall be bound by the terms of this Settlement. As soon as practicable after the opt-out deadline, the Settlement Administrator shall provide the Court and the Parties with a list of Settlement Class Members who timely and validly requested exclusion from the Settlement.

7.6 Process for Objections. The Class Notice shall provide a procedure whereby Settlement Class Members may object to the Settlement. All objections shall be filed with the Court ^{sixty-six (66)} ~~and served on Class Counsel and Defense Counsel~~ within ~~sixty (60)~~ days from the Notice Date. Any objection shall, at a minimum, require the individual to provide: (a) a detailed statement of such Settlement Class Member's specific objections to any matters before the Court;

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(b) the grounds for such objections and the reason such Settlement Class Member desires to appear and to be heard; and (c) proof of membership in the Settlement Class, as well as all other materials the Settlement Class Member wants the Court to consider.

7.7 Review of Claims Submitted. The Settlement Administrator shall determine whether a submitted Claim Form meets the requirements set forth in this Settlement Agreement. Each Claim Form shall be submitted to and reviewed by the Settlement Administrator, who shall determine whether each Claim shall be allowed. The Settlement Administrator shall use best practices and all reasonable efforts and means to identify and reject duplicate and/or fraudulent claims.

7.8 Rejection of Claims Forms. Claim Forms that do not meet the requirements set forth in this Settlement and/or in the Claim Form instructions shall be rejected by the Settlement Administrator. The Settlement Administrator shall have thirty (30) days from the end of the Claims Period to exercise the right of rejection. The Settlement Administrator shall notify the claimant using the contact information provided in the Claim Form of the rejection. Class Counsel and Defense Counsel shall be provided with copies of all such notifications of rejection, provided that the copies do not contain the name, email address, mailing address, or other personal identifying information of the claimant. If any claimant whose Claim Form has been rejected, in whole or in part, desires to contest such rejection, the claimant must, within ten (10) days from receipt of the rejection, transmit to the Settlement Administrator by email or U.S. mail a notice and statement of reasons indicating the claimant's grounds for contesting the rejection, along with any supporting documentation, and requesting further review by the Settlement Administrator, in consultation with Class Counsel and Defense Counsel, of the denial of the Claim. If Class Counsel and Defense Counsel cannot agree on a resolution of the claimant's notice contesting the rejection,

the disputed Claim shall be presented to the Court or a referee appointed by the Court for summary and non-appealable resolution. No person shall have any claim against Apple, Defense Counsel, the Named Plaintiffs, Class Counsel, and/or the Settlement Administrator based on any eligibility determinations, distributions, or awards made in accordance with this Settlement. This provision does not affect or limit in any way the right of review by the Court or referee of any disputed Claim Forms as provided in this Settlement.

7.9 Information Regarding Claims Submitted, Approved, and Rejected. Within forty-five (45) days from the end of the Claims Period, the Settlement Administrator shall provide a spreadsheet to Class Counsel and Defense Counsel that contains information sufficient to determine: (a) the number of Settlement Class Members that submitted a claim; (b) the number of submitted Claim Forms that are valid and timely and the number that were not valid and/or timely; (c) the number of submitted Claim Forms the Settlement Administrator intends to treat as Approved Claims; and (d) the number of submitted Claim Forms the Settlement Administrator has denied and the reason(s) for the denials. The Settlement Administrator shall provide supplemental spreadsheets with respect to the resolution of any rejected claims or any Claim Forms submitted after the expiration of the deadline, within a reasonable time after such resolution or receiving such Claim Forms. The materials that the Settlement Administrator provides to Class Counsel pursuant to this paragraph shall not contain the names, email addresses, mailing addresses, or other personal identifying information of the Settlement Class Members. The Settlement Administrator shall retain the originals of all Claim Forms (including envelopes with postmarks, as applicable), and shall make copies available to Class Counsel or Defense Counsel (with redactions to remove the names, email addresses, mailing addresses, or other personal identifying information of the Settlement Class Members) upon request. All such spreadsheets and related materials (including

Claim Forms) shall be designated as “Highly Confidential – Attorneys’ Eyes Only” as provided in Section 7.2.3. Should Class Counsel believe they require the name, email address, mailing address, or other personal identifying information of any particular Settlement Class Member, the Parties shall meet-and-confer, on a case-by-case basis, to determine whether the release of such personal identifying information is necessary. Any disputes regarding whether such information may be released to Class Counsel shall be presented to the Court or a referee appointed by the Court for summary and non-appealable resolution. The Settlement Administrator shall only release personal identifying information upon authorization of Apple and/or the authorization of the Court or referee.

7.10 Opportunity for Review. Defense Counsel and Class Counsel shall have fourteen (14) days after receiving the spreadsheet(s) and information specified in Section 7.9 to contest the Settlement Administrator’s determination with respect to any of the submitted Claims. Defense Counsel and Class Counsel shall meet and confer in good faith within ten (10) days to reach resolution of any such disputed Claim(s). If Class Counsel and Defense Counsel cannot agree on a resolution of any such disputed Claim(s), the disputed Claim(s) shall be presented to the Court or a referee appointed by the Court for summary and non-appealable resolution.

8. COURT APPROVAL

8.1 The Parties agree to recommend approval of the Settlement to the Court as fair and reasonable and to undertake their best efforts to obtain such approval. “Best efforts” includes that the Parties may not oppose any application for appellate review by one of the Parties in the event the Court denies preliminary or final approval. The Parties therefore agree that, at 5:00 PM Pacific time on August 26, 2021, the Named Plaintiffs shall submit this Settlement Agreement to the Court and shall apply for entry of the Preliminary Approval Order.

8.2 Class Counsel shall draft the Motion for Preliminary Approval requesting issuance of the Preliminary Approval Order as soon as practicable after execution of this Settlement Agreement, and shall provide that draft to Defense Counsel on or before August 24, 2021. The Motion for Preliminary Approval shall be written in a neutral manner that does not contain inflammatory language about the Parties or their perceived conduct in the Action. The Parties shall agree on the form of all exhibits attached to the Motion for Preliminary Approval, including but not limited to the Notice, the Summary Notice, and the Claims Form.

8.3 Upon filing of the Motion for Preliminary Approval, Apple shall provide timely notice of the Settlement as required by the Class Action Fairness Act, 28 U.S.C. § 1711, *et seq.*

8.4 In accordance with the schedule set in the Preliminary Approval Order, Class Counsel shall draft the motion for Final Approval Order and Final Judgment and shall provide that draft to Defense Counsel at least seven (7) days before filing such motion with the Court.

8.5 In the event that the Settlement is not approved (following the exhaustion of any appellate review), then (a) this Settlement Agreement shall be null and void and of no force or effect, (b) any payments made to the Settlement Administrator, including any and all interest earned thereon less monies expended toward settlement administration and/or Small Developer Assistance Fund, shall be returned to Apple within ten (10) days from the date the Settlement Agreement becomes null and void, (c) any release shall be of no force or effect, and (d) neither the Settlement Agreement nor any facts concerning its negotiation, discussion, terms or documentation shall be referred to or used as evidence or for any other purpose whatsoever in the Action or in any other action or proceeding. In such event, the Action will proceed as if no settlement has been attempted, and the Parties shall be returned to their respective procedural postures existing on the date the Settlement is executed, so that the Parties may take such litigation steps that they otherwise

would have been able to take absent the pendency of this Settlement. However, any reversal, vacatur, or modification on appeal of (a) any amount of the Attorneys' Fees and Expenses awarded by the Court to Class Counsel, or (b) any determination by the Court to award less than the amounts requested in Attorneys' Fees and Expenses or Named Plaintiff Service Awards shall not give rise to any right of termination or otherwise serve as a basis for termination of this Settlement.

9. ATTORNEYS' FEES

9.1 Class Counsel may submit an application or applications to the Court for distribution to them from the Small Developer Assistance Fund of an award of attorneys' fees and expenses incurred in connection with prosecuting the Action and as may be awarded by the Court (the "Fee and Expense Award"). Apple reserves the right to object to or oppose a request for attorneys' fees and expenses.

9.2 The Fee and Expense Award, as approved by the Court, shall be paid solely from the Small Developer Assistance Fund to an account designated by Class Counsel within forty-five (45) days after the Effective Date.

9.3 Class Counsel has the authority and responsibility to allocate and distribute the awarded funds to other counsel based, in its sole discretion, on counsel's efforts and contributions in the Action, provided that the allocation and distribution is consistent with the Court's order(s) regarding the Fee and Expense Award. Apple and Defense Counsel shall have no liability or other responsibility for allocation of any such awarded funds, and, in the event that any dispute arises relating to the allocation of fees or costs, Class Counsel and the Settlement Administrator agree to hold Apple and Defense Counsel harmless from any and all such liabilities, costs, and expenses of such dispute.

9.4 Apple shall not be liable for any additional fees or expenses of the Named Plaintiffs or any Settlement Class Member in connection with the Action. Class Counsel agree that they will not seek any additional fees, expenses, or costs from Apple in connection with the Action or the settlement of the Action beyond the approved Fee and Expense Award. Apple expressly agrees that it will not seek to recover its attorneys' fees, expenses, or costs from the Named Plaintiffs or Class Counsel once this Settlement Agreement becomes effective pursuant to the Effective Date.

9.5 The Court's Fee and Expense Award shall be separate from its determination of whether to approve the Settlement. In the event the Court approves the Settlement, but declines to award Class Counsel's attorneys' fees or expenses in the amounts requested by Class Counsel, the Settlement will nevertheless be binding on the Parties.

10. RELEASES AND DISMISSAL OF ACTION

10.1 As of the Effective Date, the Settlement Class Members and their respective heirs, executors, administrators, representatives, agents, partners, successors, and assigns shall have fully, finally, and forever released, relinquished, and discharged any and all past, present, and future claims, actions, demands, causes of action, suits, debts, obligations, damages, rights and liabilities, that were brought, could have been brought, or ^{arise from} ~~are related to~~ the same facts underlying the claims asserted in the Action, known or unknown, recognized now or hereafter, existing or preexisting, expected or unexpected, pursuant to any theory of recovery (including, but not limited to, those based in contract or tort, common law or equity, federal, state, territorial, or local law, statute, ordinance, or regulation), against the Released Parties, for any type of relief that can be released as a matter of law, including, without limitation, claims for monetary relief, damages (whether compensatory, consequential, punitive, exemplary, liquidated, and/or statutory), costs, penalties, interest, attorneys' fees, litigation costs, restitution, or equitable relief. By example only,

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and without limitation, the Settlement Class Members expressly release any claim, contention, argument, or theory that the commissions charged by Apple on paid downloads or in-app purchases of digital content (including subscriptions) through the App Store are supracompetitive, inflated, or otherwise set at unlawful amounts. Accordingly, the Settlement shall terminate the Action. Notwithstanding the foregoing, the release shall not include any claims relating to the continued enforcement of the Settlement or the Protective Orders.

10.2 As of the Effective Date, the Named Plaintiffs and their respective heirs, executors, administrators, representatives, agents, partners, successors, and assigns shall have fully, finally, and forever released, relinquished, and discharged any and all past, present, and future claims, actions, demands, causes of action, suits, debts, obligations, damages, rights and liabilities, that ^{arise from} ~~are related to~~ were brought, could have been brought, or ~~are related to~~ the same facts underlying the claims asserted in the Action regarding the App Store, known or unknown, recognized now or hereafter, existing or preexisting, expected or unexpected, pursuant to any theory of recovery (including, but not limited to, those based in contract or tort, common law or equity, federal, state, territorial, or local law, statute, ordinance, or regulation), against the Released Parties, for any type of relief that can be released as a matter of law, including, without limitation, claims for monetary relief, damages (whether compensatory, consequential, punitive, exemplary, liquidated, and/or statutory), costs, penalties, interest, attorneys' fees, litigation costs, restitution, or equitable relief. Notwithstanding the foregoing, the release shall not include any claims relating to the continued enforcement of the Settlement or the Protective Orders.

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10.3 After entering into this Settlement, the Settlement Class Members and/or Named Plaintiffs may discover facts other than, different from, or in addition to, those that they know or believe to be true with respect to the claims released by this Settlement, but they intend to release

fully, finally and forever any and all such claims. The Settlement Class Members and Named Plaintiffs expressly agree that, upon the Effective Date, they waive and forever release any and all provisions, rights, and benefits conferred by:

(a) Section 1542 of the California Civil Code, which reads:

A GENERAL RELEASE DOES NOT EXTEND TO CLAIMS THAT THE CREDITOR OR RELEASING PARTY DOES NOT KNOW OR SUSPECT TO EXIST IN HIS OR HER FAVOR AT THE TIME OF EXECUTING THE RELEASE AND THAT, IF KNOWN BY HIM OR HER, WOULD HAVE MATERIALLY AFFECTED HIS OR HER SETTLEMENT WITH THE DEBTOR OR RELEASED PARTY.

and

(b) any law of any state, territory, or possession of the United States (or for the non-U.S. Named Plaintiffs, their respective country, province, or state), or principle of common law, which is similar, comparable, or equivalent to Section 1542 of the California Civil Code.

10.4 Upon the Effective Date, the Action shall be dismissed with prejudice. Class Counsel shall have the responsibility for ensuring that the Action is dismissed with prejudice in accordance with the terms of this Settlement.

10.5 The Court shall retain jurisdiction over this Action to enforce the terms of this Settlement. In the event that any applications for relief are made, such applications shall be made to the Court. To avoid doubt, the Final Judgment applies to and is binding upon the Parties, the Settlement Class Members, and their respective heirs, successors, and assigns.

11. DEFENDANT'S DENIAL OF LIABILITY; AGREEMENT AS DEFENSE IN FUTURE PROCEEDINGS

11.1 Apple has indicated its intent to vigorously contest each and every claim in the Action, and denies all of the material allegations in the Action. Apple enters into this Settlement

Agreement without in any way acknowledging any fault, liability, or wrongdoing of any kind. Apple nonetheless has concluded that it is in its best interests that the Action be settled on the terms and conditions set forth herein in light of the expense that would be necessary to defend the Action, the benefits of disposing of protracted and complex litigation, and the desire of Apple to conduct its business and provide additional assistance to the small developer community unhampered by the distractions of continued litigation.

11.2 Neither this Settlement Agreement, nor any of its terms or provisions, nor any of the negotiation or proceedings connected with it, shall be construed as an admission or concession by Apple of the truth of any of the allegations in the Action, or of any liability, fault, or wrongdoing of any kind.

11.3 To the extent permitted by law, this Settlement Agreement may be pleaded as a full and complete defense to, and may be used as the basis for an injunction against, any action, suit, or other proceeding which may be instituted, prosecuted, or attempted for claims, causes of action, and/or theories of relief covered by the covenant not to sue and/or the releases in this Settlement Agreement.

12. MODIFICATION OR TERMINATION OF THE SETTLEMENT

12.1 Apple may, at its sole discretion, terminate this Settlement Agreement if the number of Developers who seek exclusion from the Settlement Class exceeds 10% of the total number of Developers in the Settlement Class.

12.2 The terms and provisions of this Settlement Agreement may be amended, modified, or expanded by written agreement of the Parties and approval of the Court; provided, however, that after entry of the Final Approval Order and Final Judgment, the Parties may by written agreement effect such amendments, modifications, or expansions of this Settlement Agreement

and its implementing documents (including all exhibits) without further notice to the Settlement Class or approval by the Court if such changes are consistent with the Court's Final Approval Order and Final Judgment and do not materially alter, reduce, or limit the rights of Settlement Class Members.

12.3 If any of the non-monetary terms of this Agreement are affected by a change in legislation, regulation, law, court or agency order, or any material change in circumstances, the Parties agree to meet and confer in good faith regarding an appropriate modification of the Agreement.

12.4 In the event the terms or conditions of this Settlement Agreement, other than terms pertaining to the Attorneys' Fees, are materially modified by any court, the Parties may within thirty (30) days of such material modification, declare this Settlement null and void as provided in Section 8.5. For purposes of this paragraph, material modifications include any modifications to the definitions of the Settlement Class, Settlement Class Members, Released Parties, or the scope of the releases (as provided in Sections 10.1 and 10.2), any modifications to the terms of the Settlement consideration (as provided in Sections 5.1 - 5.3). In the event of any modification by any court, and in the event Apple does not exercise its unilateral option to withdraw from this Settlement, the Parties shall meet and confer within fourteen (14) days of such modification to attempt to reach an agreement as to how best to effectuate the court-ordered modification.

12.5 If the Effective Date is not reached, this Settlement Agreement is without prejudice to the rights of any party hereto, and all terms, negotiations, and proceedings connected therewith shall not be deemed or construed to be an admission by any Party or evidence of any kind in this Action or any other action or proceeding.

13. NOTICES

13.1 All notices to Named Plaintiffs shall be delivered to:

Steve W. Berman
Robert F. Lopez
Hagens Berman Sobol Shapiro LLP
1301 Second Ave., Suite 2000
Seattle, WA 98101

13.2 All notices to Apple shall be delivered to:

Heather Grenier
Senior Director, Commercial Litigation
Apple Inc.
One Apple Park Way, MS 60-1AL
Cupertino, CA 95014

With a copy to:

Mark A. Perry
Gibson, Dunn & Crutcher LLP
1050 Connecticut Ave., NW
Washington, D.C. 20036

13.3 The notice recipients and addresses designated in paragraphs 13.1 and 13.2 may be changed upon written notice provided to all individuals identified in those paragraphs.

14. MISCELLANEOUS

14.1 This Settlement Agreement may not be modified in any respect except upon the written consent of the Parties.

14.2 The undersigned each represent and warrant that each has authority to enter into this Settlement Agreement on behalf of the Party indicated below his or her name.

14.3 If, prior to the Effective Date, Class Counsel knows, or has reason to know, of any Named Plaintiff who intends to exclude himself or herself from the Settlement or who intends to submit an objection to the Settlement, Class Counsel shall promptly notify Defense Counsel within three (3) days. The Parties shall thereafter meet and confer within seven (7) days of such

notification to determine whether any modifications to the Settlement, or any other actions or filings, are required.

14.4 Class Counsel and the Named Plaintiffs represent and warrant that they have not assigned or transferred, or purported to assign or transfer, to any person or entity, any claim or any portion thereof or interest therein, including, but not limited to, any interest in the Action or any related action, and they further represent and warrant that they know of no such assignments or transfers on the part of any member of the Settlement Class.

14.5 The Parties, together with Class Counsel and Defense Counsel, have jointly participated in the drafting of this Settlement Agreement. No Party hereto shall be considered the drafter of this Settlement Agreement or any provision hereof for the purpose of any statute, case law or rule of interpretation or construction that would or might cause any provision to be construed against the drafter hereof.

14.6 As used in this Settlement Agreement, the masculine, feminine, or neutral gender, and the singular or plural wording, shall each be deemed to include the others whenever the context so indicates.

14.7 Unless otherwise noted, all references to “days” in this Settlement Agreement shall be to calendar days. In the event any date or deadline set forth in this Settlement Agreement falls on a weekend or federal legal holiday, such date or deadline shall be on the first business day thereafter.

14.8 Any and all disputes arising from or related to this Settlement Agreement must be brought by the Parties, Class Counsel, Defense Counsel, and/or members of the Settlement Class exclusively to the Court. The Parties, Class Counsel, Defense Counsel and members of the Settlement Class irrevocably submit to the exclusive and continuing jurisdiction of the Court for

any suit, action, proceeding, or dispute arising out of or relating to this Settlement Agreement. All terms of this Settlement Agreement and any suit, action, proceeding, or dispute arising out of or relating to this Settlement Agreement shall be governed by and interpreted according to the substantive laws of the State of California without regard to choice of law or conflicts of laws principles; however, nothing in this Settlement Agreement shall operate as a waiver of any Party's position regarding the applicable law governing the underlying claims at issue in the Action.

14.9 Unless otherwise ordered by the Court, the Parties may jointly agree to reasonable extensions of time to carry out any of the provisions of this Settlement Agreement.

14.10 Unless otherwise ordered by the Court, all motions, discovery, and other proceedings in the Action shall be stayed until the Court enters the Final Approval Order and Final Judgment, or this Settlement Agreement is otherwise terminated.

14.11 Nothing in this Settlement Agreement shall alter or abrogate any prior Court orders entered in the Action.

14.12 This Settlement Agreement may be executed in counterparts. Facsimile or PDF signatures shall be considered valid as of the date they bear.

14.13 The Parties, together with Class Counsel and Defense Counsel, agree to prepare and execute all documents, to seek Court approvals, to defend Court approvals, and to do all things reasonably necessary to complete the Settlement.

14.14 This Settlement Agreement is executed voluntarily by each of the Parties without any duress or undue influence on the part, or on behalf, of any of them. The Parties represent and warrant to each other that they have read and fully understand the provisions of this Settlement Agreement and have relied on the advice and representation of legal counsel of their own choosing.

14.15 This Settlement Agreement may be amended or modified only by a written instrument signed by Defense Counsel and Class Counsel and approved by the Court.

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The Parties have agreed to the terms of this Settlement Agreement and have signed below.

For the Named Plaintiffs:



Steve W. Berman
Hagens Berman Sobol Shapiro LLP
1301 Second Ave., Suite 2000
Seattle, WA 98101

Dated: August 24, 2021

For Apple:



Heather Grenier
Senior Director, Commercial Litigation
Apple Inc.
One Apple Park Way, MS 60-1AL
Cupertino, CA 95014

Dated: August 24, 2021

EXHIBIT 14

**UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA**

DONALD R. CAMERON, ET. AL.,

Plaintiffs,

v.

APPLE INC.,

Defendant.

CASE NO. 19-cv-3074-YGR

**ORDER:
GRANTING MOTION FOR FINAL APPROVAL OF
CLASS ACTION SETTLEMENT;
GRANTING IN PART AND DENYING IN PART
MOTION FOR ATTORNEY’S FEES, COSTS, AND
SERVICE AWARD; AND**

JUDGMENT

Re: Dkt. Nos. 465 and 471

The Court previously granted plaintiffs’ Motion for Preliminary Approval of the Class Action Settlement in this matter on November 16, 2021. (Order Granting Preliminary Approval of Class Action Settlement (“Preliminary Approval Order”), Dkt. No 453.) As directed by the Preliminary Approval Order, on February 14, 2022, plaintiffs filed their Motion for Attorney’s Fees, Costs, and Service Award. (Dkt. No. 465.) Two weeks later, on February 28, 2022, Apple filed a response to plaintiffs’ motion, objecting to the amount of attorney fee’s as high. (Dkt. No. 467.)

On March 25, 2022, Steven Wytshyn, a U.S. Developer, Founder, & CEO of Cosmosent Labs, Inc., filed an objection to the settlement. (DKt. No. 469.) On April 29, 2022, plaintiffs filed their Motion for Final Settlement Approval and a response to Mr. Wytshyn’s objection. (Dkt. No. 471.) The Court held a hearing on June 7, 2022 on the pending motions.

Having considered the motion briefing, the terms of the Settlement Agreement, the arguments of counsel, and the other matters on file in this action, the Court **GRANTS** the Motion for Final Approval. In general, the Court finds the settlement fair, adequate, and reasonable. The provisional appointments of the class representatives and class counsel are confirmed. The Motion for Attorney’s fees, Costs, and Service Award is **GRANTED IN PART AND DENIED IN PART**. The Court **ORDERS** that class counsel shall be paid \$26,000,000 in attorney’s fees and

\$3,500,000 in litigation costs and that named plaintiffs Donald Cameron and Pure Sweat Basketball, Inc., shall each be paid a \$5,000 incentive award.

I. BACKGROUND

Plaintiffs filed their initial class action complaint on June 4, 2019, and their consolidated amended complaint on September 30, 2019, against defendant Apple, Inc. alleging that Apple willfully acquired and maintained monopoly power, or attempted to gain monopoly power, by refusing to allow iOS device users to purchase iOS apps and in-app products other than through its own App Store. Plaintiffs’ amended complaint alleges the following claims against Apple: (1) violation of the Sherman Act –Monopolization/ Monopsonization (15 U.S.C. § 2); (2) violation of the Sherman Act-Attempted Monopolization/ Monopsonization (15 U.S.C. § 2); (3) unlawful business practices and violations under California Business and Professions Code, § 17200, et seq. (“UCL”); and (4) unfair competition under California Business and Professions Code, § 17200, et seq. (“UCL”).

Following class and merits-based discovery, plaintiffs moved for class certification on June 1, 2021. On August 11, 2021, Apple filed its opposition to class certification. After extensive negotiations, the parties reached a settlement, and plaintiffs moved for preliminary approval of the class settlement on August 26, 2021. On November 16, 2021, the Court granted plaintiffs’ Motion for Preliminary Approval of the Class Settlement.

II. TERMS OF THE SETTLEMENT AGREEMENT

A. Monetary and Structural Relief

The settlement provides \$100,000,000 in monetary relief and structural relief in six areas of particular concern to the iOS developer community. (*See* Ex. A, Settlement Agreement). The Settlement Agreement appears to have been the product of arm’s length and informed negotiations with the assistance of an experienced mediator. The relief provided for the Class appears to be adequate, taking into account:

- (i) the costs and risks associated with trial and appeal;
- (ii) the effectiveness of any proposed method of distributing relief to the class, including the method of processing class-member claims;

- (iii) the terms of any proposed award of attorney’s fees, including timing of payment; and
- (iv) any agreements required to be identified under Rule 23(e)(3) (in this case, none).

Moreover, the Settlement Agreement appears to treat class members equitably relative to each other. The Court notes that it is particularly aware of the risks of trial in this case having tried and written a 185-page decision in *Epic Games v. Apple*, Case No. 4:20-cv-5640-YGR.

In terms of structural relief, under the Settlement, Apple has agreed to maintain the 15-percent commission tier for U.S. developers enrolled in the Small Business Program for at least three years after Final Approval. (*See* Ex. A § 5.1.1.) Next, Apple has agreed to revise its App Store Guidelines to permit developers of all app categories to communicate with consenting customers outside their app, including via email and other communication services, about purchasing methods other than in-app purchase. (*See id.* § 5.1.3.) Third, for at least three years after Final Approval, Apple will continue to “conduct robust experimentation to drive continuous improvement” in App discoverability, including in ways that will “give new and high-quality apps a chance to be found.” (*See id.* § 5.1.2.) Fourth, Apple will expand its pricing tiers from 100 to 500 (by March 31, 2023),¹ and maintain those tiers for at least three years from Final Approval. (*See id.* § 5.1.4.) This enhanced pricing freedom will allow iOS developers to more carefully calibrate their prices to compete and enhance revenues. Fifth, Apple will create an appeal process, which will be available to any developer who “believes that there has been unfair treatment by Apple in the review of any of the U.S. developer’s apps, or in-app products, or updates.” (*See id.* 5.1.5.) Apple will be required under the Settlement to maintain this appeal process, and the website callout, for at least three years. (*See id.*) Finally, in terms of transparency, for at least three years from Final Approval, Apple will publish an annual “transparency report” that (at a minimum) will provide (a) meaningful statistics on the number of apps rejected and reasons why, (b) the number of customer and developer accounts deactivated, and (c) objective data regarding search queries and results, and the number of apps removed from the App Store. (*See id.* § 5.1.6.) The Court finds these structural benefits are valuable to the settlement class.

¹ *See* Dkt. No. 478, Order Granting Joint Stipulation for Extension of Time Relating to Settlement Agreement Provision 5.1.4.

B. Attorney's Fees and Costs

Under the Settlement Agreement, class counsel agreed to seek attorney's fees plus reimbursement of class counsel's costs and expenses. The parties also agreed that Apple shall pay named plaintiffs up to \$5,000 each as an incentive award in exchange for a general release of all claims against Apple.

C. Class Member Release

Settlement Class Members and their respective heirs, executors, administrators, representatives, agents, partners, successors, and assigns shall have fully, finally, and forever released, relinquished, and discharged any and all past, present, and future claims, actions, demands, causes of action, suits, debts, obligations, damages, rights and liabilities, that were brought, could have been brought, or arise from the same facts underlying the claims asserted in the action, known or unknown, recognized now or hereafter, existing or preexisting, expected or unexpected, pursuant to any theory of recovery (including, but not limited to, those based in contract or tort, common law or equity, federal, state, territorial, or local law, statute, ordinance, or regulation), against Apple, Inc. for any type of relief that can be released as a matter of law, including, without limitation, claims for monetary relief, damages (whether compensatory, consequential, punitive, exemplary, liquidated, and/or statutory), costs, penalties, interest, attorneys' fees, litigation costs, restitution, or equitable relief.

D. Class Notice and Claims Administration

Pursuant to the Settlement Agreement, the Court appointed Angeion Group to administer the settlement and to contact the class members in the manner set forth therein and including the attachments contained within the Preliminary Approval Order. Class members were given until March 21, 2022, to object to or exclude themselves from the Settlement Agreement. Only thirteen of the total class members opted out and only one member objected to the class settlement.

III. FINAL APPROVAL OF SETTLEMENT**A. Legal Standard**

A court may approve a proposed class action settlement of a class proposed to be certified only "after a hearing and on finding that it is fair, reasonable, and adequate," and that it meets the

requirements for class certification. Fed. R. Civ. P. 23(e)(2). In reviewing the proposed settlement, a court need not address whether the settlement is ideal or the best outcome, but only whether the settlement is fair, free of collusion, and consistent with plaintiff's fiduciary obligations to the class. *See Hanlon v. Chrysler Corp.*, 150 F.3d 1011, 1027 (9th Cir. 1998), *overruled on other grounds by Dukes*, 564 U.S. at 131. The *Hanlon* court identified the following factors as relevant to assessing a settlement proposal: (1) the strength of the plaintiff's case; (2) the risk, expense, complexity, and likely duration of further litigation; (3) the risk of maintaining class action status throughout the trial; (4) the amount offered in settlement; (5) the extent of discovery completed and the stage of the proceeding; (6) the experience and views of counsel; (7) the presence of a government participant; and (8) the reaction of class members to the proposed settlement. *Id.* at 1026 (citation omitted); *see also Churchill Vill., L.L.C. v. Gen. Elec.*, 361 F.3d 566, 575 (9th Cir. 2004). In reviewing such settlements, in addition to considering the above factors, a court also must ensure that "the settlement is not the product of collusion among the negotiating parties." *In re Bluetooth Headset Prods. Liab. Litig.*, 654 F.3d 935, 946–47 (9th Cir. 2011).

Settlements that occur before formal class certification also "require a higher standard of fairness." *In re Mego Fin. Corp. Sec. Litig.*, 213 F.3d 454, 458 (9th Cir. 2000). In reviewing such settlements, in addition to considering the above factors, a court also must ensure that "the settlement is not the product of collusion among the negotiating parties." *In re Bluetooth Headset Prods. Liab. Litig.*, 654 F.3d at 946–47.

B. Class Definition and Basis for Certification

The Settlement Agreement, attached hereto as **Exhibit A**, defines the class as:

All former or current U.S. developers of any Apple IOS application or in-app product (including subscriptions) sold for a non-zero price via Apple's IOS App Store that earned, through all Associated Developer Accounts, proceeds equal to or less than \$1,000,000 through the App Store U.S. storefront in every calendar year in which the U.S. developer had a developer account between June 4, 2015 to the date of the Agreement (August 24, 2021). For class definition purposes, the 2015 calendar year consist of June 4, 2015 through December 31, 2015. The 2021 calendar year shall consist of January 1, 2021 through April 26, 2021. Additionally, excluded from the Settlement Class are (a) directors, officers, and employees

of Apple or its subsidiaries and affiliated companies, as well as Apple’s legal representatives, heirs, successors, or assigns, (b) the Court, the Court staff, as well as any appellate court to which this matter is ever assigned and its staff, (c) Defense Counsel, as well as their immediate family members, legal representatives, heirs, successors, or assigns, (d) any Developers who validly request exclusion (“opt out”) from the Settlement Class, and (e) any other individuals whose claims already have been adjudicated to a final judgment.

The Court finds that, for purposes of settlement, plaintiffs have satisfied the requirements of Rule 23(a) as well as the requirements for certification under one or more subsections of Rule 23(b). With respect to numerosity under Rule 23(a)(1), the settlement class includes approximately 67,000 members, making it so numerous that joinder of all members is impracticable.

Rule 23(a)(2) commonality requires “questions of fact or law common to the class,” though all questions of fact and law need not be in common. *See Hanlon*, 150 F.3d at 1026. Plaintiffs brought the following causes of action: (i) Violation of the Sherman Act – Monopolization/ Monopsonization (15 U.S.C. § 2); (ii) Violation of the Sherman Act-Attempted Monopolization/ Monopsonization (15 U.S.C. § 2); (iii) Unlawful business practices and violations under California Business and Professions Code, § 17200, et seq. (“UCL”); and (iv) Unfair competition under California Business and Professions Code, § 17200, et seq. (“UCL”). (*See* Dkt. No. 53) (“Consolidated Class Complaint”). The focus of this action—whether Apple willfully acquired and maintained monopoly power, or attempted to gain monopoly power, by refusing to allow iOS device users to purchase iOS apps and in-app products other than through its own App Store—is common to all class members. Antitrust actions are particularly appropriate for class treatment as the allegations regarding the defendant’s conduct, and the evidence of the same, which typically is expert heavy, impacts the class generally.

Rule 23(a)(3) requires that the plaintiffs show that the claims or defenses of the representative parties are typical of the claims or defenses of the class. Plaintiffs’ and members of the settlement class claims all stem from the same alleged conduct, *i.e.* antitrust injury, making plaintiffs’ claims typical of class members. Here, while the settlement class is narrower than that alleged in the consolidated complaint, the class representatives themselves are typical of those

1 members represented herein, namely the subgroup of 99% of the developers.

2 With respect to Rule 23(a)(4), the Court finds the representative parties and class counsel
3 have fairly and adequately represented the interests of the class. No conflicts of interest appear as
4 between plaintiffs and the members of the settlement class. Class counsel are deeply versed in this
5 area of the law and have routinely demonstrated that they are qualified and have experience with
6 prosecuting class actions of this kind and therefore adequate to represent the settlement class as
7 well. The parties engaged in extensive discovery during the almost 2.5-year course of this
8 litigation. More than 5 million documents and 20 million pages have been produced in this
9 litigation. Dkt. No. 465-1, Declaration of Steve Berman, ¶ 17. Apple has produced 13 terabytes of
10 transactional data that plaintiffs and their experts have analyzed. *Id.*

11 The settlement class further satisfies Rule 23(b)(3) in that common issues predominate and
12 “a class action is superior to other available methods for fairly and efficiently adjudicating” the
13 claims here.

14 Based on the foregoing, the proposed settlement class is certified pursuant to Rule 23(c).

15 **C. Adequacy of Notice**

16 A court must “direct notice [of a proposed class settlement] in a reasonable manner to all
17 class members who would be bound by the proposal.” Fed. R. Civ. P. 23(e)(1). “The class must
18 be notified of a proposed settlement in a manner that does not systematically leave any group
19 without notice.” *Officers for Justice v. Civil Serv. Comm’n*, 688 F.2d 615, 624 (9th Cir. 1982).
20 Adequate notice requires: (i) the best notice practicable; (ii) reasonably calculated, under the
21 circumstances, to apprise the Class members of the proposed settlement and of their right to object
22 or to exclude themselves as provided in the settlement agreement; (iii) reasonable and constitute
23 due, adequate, and sufficient notice to all persons entitled to receive notice; and (iv) meet all
24 applicable requirements of due process and any other applicable requirements under federal law.
25 *Phillips Petroleum Co. v. Shutts*, 472 U.S. 797, 812 (1985). Due process requires “notice
26 reasonably calculated, under all the circumstances, to apprise interested parties of the pendency of
27 the action and afford them an opportunity to present their objections.” *Mullane v. Cent. Hanover*
28 *Bank & Tr. Co.*, 339 U.S. 306, 314 (1950).

1 The Court approved the parties' proposed notice procedures when it granted preliminary
2 approval. Pursuant to those procedures, the class administrator provided class members with
3 individual direct notice via both email and mail. The class administrator also utilized a targeted
4 social media campaign, using Facebook, Instagram, and LinkedIn, and an online class settlement
5 website to provide notice to the class and engaged in numerous actions to follow-up and find missing
6 class members, where able. Apple also posted a message to its developer news website on April 25,
7 2022, directing developers to the settlement website.

8 Based upon the foregoing, the Court finds that the settlement class has been provided
9 adequate notice.

10 **D. Settlement Agreement Appears Fair and Reasonable**

11 As to the *Hanlon* factors, the Court finds that they indicate the settlement here is fair and
12 reasonable. Absent the settlement, plaintiffs would have been required to show that Apple
13 willfully acquired and maintained monopoly power, or attempted to gain monopoly power, by
14 refusing to allow iOS device users to purchase iOS apps and in-app products other than through its
15 own App Store. Antitrust cases such as this one are "particularly risky, challenging, and widely
16 acknowledge[d] to be among the most complex actions to prosecute." *In re Lithium Ion Batteries*
17 *Antitrust Litig.*, 2020 WL 7264559, at *15 (N.D. Cal. Dec. 10, 2020). Further, proceeding to trial
18 would have been costly; recovery was not guaranteed; and there was the possibility of protracted
19 appeals.

20 The Settlement Agreement appears to have been the product of arm's length and informed
21 negotiations. The settlement occurred only after extensive litigation including: the exchange of
22 more than 5 million documents and 20 million page, more than fifty depositions, including
23 depositions of Apple's senior management. Following protracted negotiations, and motion
24 practice, Apple produced a 13-terabyte transactional dataset that plaintiffs and their experts have
25 extensively analyzed. Thus, the parties have vetted their claims and know the strengths and
26 weaknesses of their case. Further, they settled after monitoring the trial in *Epic Games v. Apple*
27 but before the Court issued its final decision.
28

1 In addition, the parties engaged in four mediation sessions conducted by the Honorable
2 Layn Phillips which demonstrates that the settlement reached by the parties was a result of serious,
3 informed, non-collusive, and arms-length negotiation. Counsel for both parties are highly
4 experienced. Accordingly, the Court finds that the record does not indicate collusion or self-
5 dealing. *See In re Bluetooth*, 654 F.3d at 946-47.

6 The relief provided for the Class appears to be adequate, taking into account: (i) the costs,
7 risks, and delay of trial and appeal; (ii) the effectiveness of any proposed method of distributing
8 relief to the class; (iii) the terms of any proposed award of attorney's fees, including timing of
9 payment; and (iv) any agreements required to be identified under Rule 23(e)(3). Moreover, the
10 Settlement Agreement appears to treat Class members equitably relative to each other.

11 The reaction of the class was entirely positive. As noted, the Court received thirteen opt-
12 outs and one objection after a vigorous notice plan. Given the press regarding the settlement, the
13 Court is confident that the class had adequate notice and would have advised the Court had
14 significant objections existed. “[T]he absence of a large number of objections to a proposed class
15 action settlement raises a strong presumption that the terms of a proposed class settlement action
16 are favorable to the class members.” *In re Omnivision Techs., Inc.*, 559 F.Supp.2d 1036, 1043
17 (N.D. Cal. 2008) (citation omitted); *see also Churchill Vill.*, 361 F.3d at 577 (holding that
18 approval of a settlement that received 45 objections (0.05%) and 500 opt-outs (0.56%) out of
19 90,000 class members was proper).

20 **E. Objection to Settlement**

21 With respect to the one objection from Steven Wytshyn, a U.S. Developer, Founder, &
22 CEO of Cosmosent Labs, Inc. (Dkt. 469), the Court notes that the objection does not argue that the
23 settlement is necessarily unfair, unreasonable, or inadequate. Rather, Mr. Wytshyn criticizes
24 certain aspects of the App Store and suggests improvements that he would have liked to see
25 addressed as part of the settlement. Specifically, the objection criticizes Apple’s suppression of
26 certain apps on the App Store, Apple’s control of app ratings, and the desire to have Apple
27 disclose per-category revenue numbers on a weekly basis.
28

The Ninth Circuit has made clear that the fairness of a proposed settlement “is not to be judged against a hypothetical or speculative measure of what might have been achieved by the negotiators” explaining that “the very essence of a settlement is compromise, ‘a yielding of absolutes and an abandoning of highest hopes.’ ” *Linney v. Cellular Alaska P’ship*, 151 F.3d 1234, 1242 (9th Cir. 1998). Thus, while the Court understands Mr. Wytshyn’s concerns and desire for additional relief, the objection itself does not provide a basis to deny final approval.

F. Other Findings

Notice to Government Agencies: The settlement administrator provided the required notice to federal and state attorneys general under the Class Action Fairness Act (“CAFA”). 28 U.S.C. § 1715(b). (Dkt. No. 471-2 ¶ 6.) Notice occurred more than 90 days before the date of this order, as required by 28 U.S.C. § 1715(d).

G. Certification is Granted and the Settlement is Approved

After reviewing all of the required factors, the Court finds the Settlement Agreement to be fair, reasonable, and adequate, and certification of the settlement class as defined therein to be proper. Accordingly, the Court grants class certification to the following settlement class:

All former or current U.S. developers of any Apple IOS application or in-app product (including subscriptions) sold for a non-zero price via Apple’s IOS App Store that earned, through all Associated Developer Accounts, proceeds equal to or less than \$1,000,000 through the App Store U.S. storefront in every calendar year in which the U.S. developer had a developer account between June 4, 2015 to the date of the Agreement (August 24, 2021). For class definition purposes, the 2015 calendar year consist of June 4, 2015 through December 31, 2015. The 2021 calendar year shall consist of January 1, 2021 through April 26, 2021. Additionally, excluded from the Settlement Class are (a) directors, officers, and employees of Apple or its subsidiaries and affiliated companies, as well as Apple’s legal representatives, heirs, successors, or assigns, (b) the Court, the Court staff, as well as any appellate court to which this matter is ever assigned and its staff, (c) Defense Counsel, as well as their immediate family members, legal representatives, heirs, successors, or assigns, (d) any Developers who validly request exclusion (“opt out”) from the Settlement Class, and (e) any other individuals whose claims already have been adjudicated to a final judgment.

IV. MOTION FOR ATTORNEY’S FEES, COSTS, AND CLASS REPRESENTATIVE AWARDS**A. Attorney’s Fees**

Attorney’s fees and costs may be awarded in a certified class action under Federal Rule of Civil Procedure 23(h). Such fees must be found “fair, reasonable, and adequate” in order to be approved. Fed. R. Civ. P. 23(e); *Staton v. Boeing Co.*, 327 F.3d 938, 963 (9th Cir. 2003). To “avoid abdicating its responsibility to review the agreement for the protection of the class, a district court must carefully assess the reasonableness of a fee amount spelled out in a class action settlement agreement.” *Id.* “[T]he members of the class retain an interest in assuring that the fees to be paid class counsel are not unreasonably high,” since unreasonably high fees are a likely indicator that the class has obtained less monetary or injunctive relief than they might otherwise. *Id.* at 964.

The Court analyzes an attorney’s fee request based on either the “lodestar” method or a percentage of the total settlement fund made available to the class, including costs, fees, and injunctive relief. *Vizcaino v. Microsoft Corp.*, 290 F.3d 1043, 1047 (9th Cir. 2002). The Ninth Circuit encourages courts to use another method as a cross-check in order to avoid a “mechanical or formulaic approach that results in an unreasonable reward.” *In re Bluetooth*, 654 F.3d at 944–45 (citing *Vizcaino*, 290 F.3d at 1050–51.)

Under the lodestar approach, a court multiplies the number of hours reasonably expended by the reasonable hourly rate. *Kelly v. Wengler*, 822 F.3d 1085, 1099 (9th Cir. 2016) (“[A] court calculates the lodestar figure by multiplying the number of hours reasonably expended on a case by a reasonable hourly rate. A reasonable hourly rate is ordinarily the ‘prevailing market rate [] in the relevant community.’”). Under the percentage-of-the-fund method, courts in the Ninth Circuit “typically calculate 25% of the fund as the ‘benchmark’ for a reasonable fee award, providing adequate explanation in the record of any ‘special circumstances’ justifying a departure.” *In re Bluetooth*, 654 F.3d at 942 (citing *Six (6) Mexican Workers v. Ariz. Citrus Growers*, 904 F.2d 1301, 1311 (9th Cir. 1990)). The benchmark should be adjusted when the percentage recovery would be “either too small or too large in light of the hours devoted to the case or other relevant factors.” *Six (6) Mexican Workers*, 904 F.2d at 1311. When using the percentage-of-recovery

method, courts consider a number of factors, including whether class counsel “‘achieved exceptional results for the class,’ whether the case was risky for class counsel, whether counsel’s performance ‘generated benefits beyond the cash settlement fund,’ the market rate for the particular field of law (in some circumstances), the burdens class counsel experienced while litigating the case (e.g., cost, duration, foregoing other work), and whether the case was handled on a contingency basis.” *In re Online DVD-Rental Antitrust Litig.*, 779 F.3d 934, 954-55 (9th Cir. 2015) (quoting *Vizcaino*, 290 F.3d at 1047-50. “[T]he most critical factor [in determining appropriate attorney’s fee awards] is the degree of success obtained.” *Hensley v. Eckerhart*, 461 U.S. 424, 436 (1983). The Ninth Circuit has made clear that in “megafund” cases, courts may “employ the lodestar method instead” of the percentage-of-recovery method if rote application of the 25% benchmark “would yield windfall profits for class counsel in light of the hours spent on the case.” *In re Bluetooth*, 654 F.3d at 942.

Here, class counsel advocates applying the percentage-of-the-fund method. Class counsel requests \$27 million which is 27 percent of the \$100 million class cash fund. The attorney’s fees sought reflect a multiplier of 2.47 of the actual lodestar totaling \$10,923,265. Class counsel argues that the Court should award the requested fees because the requested amount is only 19.9 percent of the \$135.44 million in quantifiable relief when you factor in the \$35.44 million in savings to the class by way of the structural relief that is part of the settlement.

Here, the Court applies the percentage-of-the-fund method. As a starting point, the Court finds that 25% of the cash fund method is inherently reasonable. *See, e.g., In re Bluetooth Headset Prod. Liab. Litig.*, 654 F.3d at 941–42 (“[C]ourts typically calculate 25% of the fund as the ‘benchmark’ for a reasonable fee award, providing adequate explanation in the record of any ‘special circumstances’ justifying a departure.”). However, the Court maintains its discretion to adjust upward or downward. *Haralson v. U.S. Aviation Servs. Corp.*, 2021 WL 5033832, at *7 (N.D. Cal. Feb. 3, 2021).

In applying the percentage-of-the-fund method, the Court finds that an award of \$26 million is appropriate. This amount constitutes 26% of the common fund or roughly 19.2 percent of the settlement if you include the \$35.44 million in value of the structural relief. A 1% increase

over the presumptively reasonable 25% benchmark is warranted in light of the significant value of the non-monetary relief conferred to the class by way of the structural relief. Some of the key benefits of the structural relief include: Apple's maintenance of the small business program; transparency in the form of annual transparency reports containing data on Apple's app review, search, security, and more; an appeal process that allows developers to appeal rejections of apps; Apple's expansion of price points; Apple's change in policy that will now permit U.S. developers to communicate with their customers via email and other means outside their apps about alternatives to in-app purchasing methods; and relief relating to app discoverability that will make it easier for newer and smaller apps to be found.

While the exact value of this information is difficult to quantify, plaintiffs' expert, Nicholas Economides, opined that the settlement class will save approximately \$177.2 million in commissions by way of Apple maintaining its Small Business Program for three years post settlement. (Dkt. No. 459-7, Declaration of Nicholas Economides, at 8.) He also opined that other aspects of the structural relief such as allowing developers to communicate with customers outside the app store will also lead to developers paying less in commission fees. (*Id.* at 9.) While Apple disputes whether Mr. Economides' figures are accurate, Apple does not dispute the structural relief also confers substantial benefits to the settlement class. Thus, the Court finds that a slight increase in the standard benchmark is warranted here. As such, the Court awards class counsel \$26 million in attorney's fees.

The Court also applies the lodestar method as a cross-check. *In re Bluetooth*, 654 F.3d at 944–45. Class counsel has submitted several declarations describing its billing rates and hours worked for this case. Having reviewed the billing rates, the Court finds them reasonable in light of the prevailing market rates in this district and that class counsel has submitted adequate documentation justifying those rates. The Court also finds that the billing records adequately reflect the amount of time reasonably spent on this litigation. Accordingly, the Court finds that class counsel's reported total lodestar of \$10,923,265, which covers 20,531 hours of time worked, is reasonable.

The Court's award of \$26 million represents a positive multiplier of 2.38. As indicated

above, the Court may “adjust” the lodestar figures “upward or downward by an appropriate positive or negative multiplier reflecting a host of ‘reasonableness’ factors, ‘including the quality of representation, the benefit obtained for the class, the complexity and novelty of the issues presented, and the risk of nonpayment.’” *In re Bluetooth*, 654 F.3d at 941-42. The Ninth Circuit in *Vizcaino* conducted a survey of attorney’s fees awards in “megafund cases.” *See* 290 F.3d at 1052-54. This survey involved common fund cases ranging from \$50–200 million between 1996 and 2001. *See id.* In 83% of the settlements (20 of 24), the court found that the multiplier ranged from 1.0–4.0, and in 54% of the settlements (13 of 24), the multiplier ranged from 1.5–3.0 range. *Id.* at 1051 n.6.

The Court concludes that a positive multiplier of 2.38 is appropriate for class counsel and is consistent with the vast majority large settlements such as this one and would adequately reward class counsel for the work performed in this litigation. The Court recognizes that class counsel has achieved significant benefits for the class and that class counsel assumed a risk of nonpayment while litigating this case for nearly three years. In the end, class counsel achieved a significant result for the class. According to plaintiffs, the \$100 million cash fund represents approximately 30 to 34 percent of the maximum potential damages for the class.

Based on the foregoing, the Court awards class counsel \$26 million in attorney’s fees which represents 26% of the class cash fund (approximately 19.2 percent if you include the value of the structural relief) and a 2.38 multiplier to class counsel’s lodestar of \$10,923,265.

B. Costs Award

Class counsel is entitled to reimbursement of reasonable out-of-pocket expenses. Fed. R. Civ. P. 23(h); *see Harris v. Marhoefer*, 24 F.3d 16, 19 (9th Cir. 1994) (holding that attorneys may recover reasonable expenses that would typically be billed to paying clients in non-contingency matters). Costs compensable under Rule 23(h) include “nontaxable costs that are authorized by law or by the parties’ agreement.” Fed. R. Civ. P. 23(h). Here, class counsel seeks reimbursement for litigation expenses, and provides records documenting those expenses in the amount of \$3,713,173.84. However, class counsel only seeks reimbursement for \$3,500,000. The Court finds an award of \$3,500,000 in costs reasonable, fair, and adequate.

1 **C. Service Awards**

2 The district court must evaluate named plaintiffs' requested award using relevant factors
3 including "the actions the plaintiff has taken to protect the interests of the class, the degree to
4 which the class has benefitted from those actions . . . [and] the amount of time and effort the
5 plaintiff expended in pursuing the litigation." *Staton*, 327 F.3d at 977. "Such awards are
6 discretionary . . . and are intended to compensate class representatives for work done on behalf of
7 the class, to make up for financial or reputational risk undertaken in bringing the action, and,
8 sometimes, to recognize their willingness to act as a private attorney general." *Rodriguez v. West*
9 *Publishing Corp.*, 563 F.3d 948, 958-959 (9th Cir. 2009). The Ninth Circuit has emphasized that
10 district courts must "scrutiniz[e] all incentive awards to determine whether they destroy the
11 adequacy of the class representatives." *Radcliffe v. Experian Info. Solutions*, 715 F.3d 1157, 1163
12 (9th Cir. 2013).

13 Here, both class representatives are current App Store developers who took significant
14 risks in bringing this action in their own names. Further, both class representatives devoted
15 substantial time to litigating the action. They both sat for deposition, attended numerous meetings
16 to prepare for the depositions, compiled documents, regularly corresponded with counsel, and
17 neither derived a personal benefit beyond any recovery to the class. Because the laws are not self-
18 enforcing, it is appropriate to give incentives to those who come forward with little to gain and
19 who work to achieve a settlement that confers substantial benefits on others. Thus, the Court
20 approves the requested incentive award payment for plaintiffs Donald Cameron and Pure Sweat
21 Basketball, Inc.

22 **V. CONCLUSION**

23 Based upon the foregoing, the motion for final approval of class settlement is **GRANTED**.
24 The motion for attorney's fees, costs, and service awards is **GRANTED IN PART AND DENIED IN**
25 **PART** as follows: Class Counsel is awarded \$26,000,000 in attorney's fees and \$3,500,000 in
26 litigation costs. Plaintiffs Donald Cameron and Pure Sweat Basketball, Inc. are each granted an
27 incentive award of \$5,000.
28

Without affecting the finality of this order in any way, the Court retains jurisdiction of all matters relating to the interpretation, administration, implementation, effectuation and enforcement of this order and the Settlement.

IT IS HEREBY ORDERED, ADJUDGED AND DECREED that final judgment is **ENTERED** in accordance with the terms of the Settlement, the Order Granting Preliminary Approval of Class Action Settlement issued on November 16, 2021, and this Order. This document will constitute a final judgment (and a separate document constituting the judgment) for purposes of Rule 58, Federal Rules of Civil Procedure.

The parties shall file a post-distribution accounting in accordance with this District's Procedural Guidance for Class Action Settlements no later than **OCTOBER 28, 2022**. The Court **SETS** a compliance deadline on **OCTOBER 21, 2022** on the Court's 9:01 a.m. calendar to verify timely filing of the post-distribution accounting.

This terminates Docket Nos. 465 and 471.

Is So ORDERED.

Dated: June 10, 2022


YVONNE GONZALEZ ROGERS
UNITED STATES DISTRICT COURT JUDGE

EXHIBIT A

**UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
OAKLAND DIVISION**

Donald R. Cameron, et al.,

Plaintiffs,

v.

Apple Inc.,

Defendant.

Case No. 4:19-cv-03074-YGR

The Honorable Yvonne Gonzalez Rogers

STIPULATION OF SETTLEMENT

SETTLEMENT AGREEMENT AND RELEASE

The Parties, by and through their respective counsel, in consideration for and subject to the promises, terms, and conditions contained in this Settlement Agreement, hereby warrant, represent, acknowledge, covenant, stipulate and agree, subject to Court approval pursuant to Rule 23 of the Federal Rules of Civil Procedure, as follows:

1. DEFINITIONS

As used herein the following terms have the meanings set for below:

1.1 “Action” shall mean the litigation styled Donald R. Cameron, Pure Sweat Basketball, Inc., and Barry Sermons, on behalf of themselves and all others similarly situated v. Apple Inc., Case No. 4:19-cv-03074-YGR, filed in the United States District Court for the Northern District of California (the “Court”).

1.2 “Apple” means Apple Inc.

1.3 “Approved Claims” means those Claims which are approved by the Settlement Administrator for payment.

1.4 “Associated Developer Accounts” means any U.S. Apple Developer Program account that an individual or legal entity owns or controls, or any U.S. Apple Developer Program account that owns or controls a given individual’s or legal entity’s account.

1.5 “Attorneys’ Fees” means any award of attorneys’ fees, costs, and expenses of any kind or description incurred by Class Counsel or other attorneys, experts, consultants, or agents of the Named Plaintiffs or the Settlement Class.

1.6 “Claim Form” means the proof of claim and release form(s) in a form mutually agreeable to the parties, to be attached as an exhibit to the Motion for Preliminary Approval.

1.7 “Claim” means any claim submitted by a Settlement Class Member.

1.8 “Claims Period” means the period between the Notice Date until the deadline set forth in paragraph 7.4.

1.9 “Class Counsel” means the law firm of Hagens Berman Sobol Shapiro LLP, who has any and all authority and capacity necessary to execute this Settlement Agreement and bind all of the Named Plaintiffs who have not personally signed this Settlement Agreement, as if each of those individuals had personally executed this Settlement Agreement.

1.10 “Class Notice” means the Notice of Pendency and Proposed Settlement of Class Action in a form mutually agreeable to the parties, to be attached as an exhibit to the Motion for Preliminary Approval.

1.11 “Court” means the United States District Court for the Northern District of California.

1.12 “Defense Counsel” means the law firm of Gibson, Dunn & Crutcher LLP.

1.13 “Developer” means a person or entity who has registered for a Developer Program Account with Apple, and shall include all Associated Developer Accounts. A “U.S. Developer” means a Developer who self-identified as U.S.-based when registering for the Developer Program.

1.14 “Effective Date” shall mean the first day after which all of the following events and conditions of this Settlement Agreement have been met or occurred:

- (a) Apple, Class Counsel, and Defense Counsel have executed this Settlement Agreement;
- (b) The Court has conditionally certified the Settlement Class, preliminarily approved the Settlement, and approved notice to the Settlement Class;
- (c) The time period for members of the Settlement Class to exclude themselves has expired;
- (d) The Settlement Administrator has delivered the spreadsheet(s) and information to Defense Counsel and Class Counsel as specified in Section 7.9 and 7.10;
- (e) All disputed Claims have been resolved;
- (f) The Court has entered the Final Approval Order and Final Judgment;
- (g) The time for appeal or writ of the Final Approval Order and Final Judgment has expired or, if an appeal and/or petition for review is taken and the Settlement is affirmed, the time period during which further petition for hearing, appeal, or writ of certiorari can be taken has expired;
- (h) The time for appeal or writ of any order regarding Attorneys’ Fees and Expenses and/or Named Plaintiff Service Awards has expired or, if an appeal and/or petition for review is taken and the order is affirmed, the

time period during which further petition for hearing, appeal, or writ of certiorari can be taken has expired;

(i) The Action is dismissed with prejudice and a final judgment is entered;

and

(j) The time for appeal or writ of the final judgment in the Action has expired or, if an appeal and/or petition for review is taken and the dismissal is affirmed, the time period during which further petition for hearing, appeal, or writ of certiorari can be taken has expired.

1.15 “Final Approval Order and Final Judgment” means the final approval order and judgment dismissing and closing the Action.

1.16 “Final Hearing” means the hearing(s) held by the Court to consider and determine whether the requirements for certification of the Settlement Class have been met and whether the Settlement should be approved as fair, reasonable, and adequate; whether Class Counsel’s Attorneys’ Fees should be approved; and whether the Final Approval Order and Final Judgment should be entered. The Final Hearing may, from time to time and without further notice to the Settlement Class (except those who have filed timely and valid objections and requested to speak at the Final Hearing), be continued or adjourned by order of the Court.

1.17 “Named Plaintiffs” means Donald R. Cameron and Pure Sweat Basketball, Inc.

1.18 “Net Small Developer Assistance Fund” means the Small Developer Assistance Fund, reduced by the sum of the following amounts: (1) the costs of notice and the costs of administering the Settlement, as set forth in Sections 7.1 and 7.2 below; (2) any Attorneys’ Fees (which may include separate awards for fees and expenses) to Class Counsel, as set forth in

Sections 9.1 and 9.2 below; and (3) any Service Awards provided to Named Plaintiffs with the authorization of the Court.

1.19 “Notice Date” means the date set forth in the Preliminary Approval Order for commencing the transmission of the Email Notice.

1.20 “Parties” means Apple and the Named Plaintiffs.

1.21 “Proceeds” means a Developer’s net revenues on the U.S. App Store storefront, after subtracting out any commission paid to Apple.

1.22 “Preliminary Approval Order” means an order preliminarily approving the Settlement, providing for notice to the Settlement Class, and preliminarily approving a proposed disposition of the Small Developer Assistance Fund.

1.23 “Released Parties” means (a) Apple and its past, present, and future parents, subsidiaries, affiliates, divisions, joint ventures, licensees, franchisees, and any other legal entities, whether foreign or domestic, that are owned or controlled by Apple; and (b) the past, present, and future shareholders, officers, directors, members, agents, employees, independent contractors, consultants, administrators, representatives, fiduciaries, insurers, predecessors, successors, and assigns of the entities in part (a) of this paragraph.

1.24 “Service Award” means a payment from the Small Developer Assistance Fund to either or both of the two Named Plaintiffs, in an amount not to exceed \$5,000.00, in recognition of their service in prosecuting this action as developer businesses, exclusive of any other payments to which they might be entitled under this Agreement, if approved by the Court.

1.25 “Settlement” and “Settlement Agreement” mean the settlement described in this Stipulation of Settlement.

1.26 “Settlement Administrator” means Angeion Group, which shall provide settlement notice and administration services pursuant to the terms of this Settlement Agreement.

1.27 “Settlement Class” means all former or current U.S. Developers of any Apple iOS application or in-app product (including subscriptions) sold for a non-zero price via Apple’s iOS App Store that earned, through all Associated Developer Accounts, Proceeds equal to or less than \$1,000,000.00 through the App Store U.S. storefront in every calendar year in which the U.S. Developer had a Developer Account between June 4, 2015 to the date of this Agreement. For class definition purposes, the 2015 calendar year shall consist of June 4, 2015 through December 31, 2015. The 2021 calendar year shall consist of January 1, 2021 through April 26, 2021, the last date in 2021 for which there are available developer transactional data as produced in this Action. Additionally, excluded from the Settlement Class are (a) directors, officers, and employees of Apple or its subsidiaries and affiliated companies, as well as Apple’s legal representatives, heirs, successors, or assigns, (b) the Court, the Court staff, as well as any appellate court to which this matter is ever assigned and its staff, (c) Defense Counsel, as well as their immediate family members, legal representatives, heirs, successors, or assigns, (d) any Developers who validly request exclusion (“opt out”) from the Settlement Class, and (e) any other individuals whose claims already have been adjudicated to a final judgment.

1.28 “Settlement Class Member” means and includes every member of the Settlement Class who does not validly and timely request exclusion (“opt out”) from the Settlement Class.

1.29 “Small Developer Assistance Fund” means a non-reversionary cash fund total of \$100,000,000.00 to be paid by Apple and administered by the Settlement Administrator in accordance with the terms of this Settlement Agreement.

1.30 “Settlement Website” means an Internet website that the Settlement Administrator shall establish to inform the Settlement Class of the terms of this Settlement, their rights, dates, deadlines, and related information.

1.31 “Summary Notice” means the Summary Notice of Settlement in a form mutually agreeable to the parties, to be attached as an exhibit to the Motion for Preliminary Approval.

2. RECITALS

This Agreement is made for the following purposes and with reference to the following facts:

2.1 On June 4, 2019, plaintiffs Donald Cameron and Pure Sweat Basketball, Inc. filed the first complaint in the Action in the United State District Court for the Northern District of California. On September 30, 2019, Named Plaintiffs filed a Consolidated Amended Complaint. The Consolidated Amended Complaint alleged that Apple had monopolized an alleged iOS app and in-app-product distribution services market in violation of Section 2 of the Sherman Act; that Apple had attempted to monopolize an alleged iOS app and in-app-product distribution services market in violation of Section 2 of the Sherman Act; and that Apple’s conduct violated Section 17200 of the California Business and Professions Code.

2.2 The Parties engaged in extensive discovery in the Action, which was consolidated with *Epic v. Apple Inc.*, Case No. 4:20-CV-05640-YGR, and *In re Apple iPhone Antitrust Litigation*, Case No. 4:11-cv-06714-YGR, for purposes of discovery. Apple produced more than 20 million pages of documents and the Parties deposed almost 50 individuals.

2.3 On January 1, 2021, Apple introduced the App Store Small Business Program (“SBP”). The structure and timing of the SBP was driven by Apple’s desire to accelerate innovation and help propel small businesses forward with the next generation of groundbreaking

apps on the App Store, in light of the Coronavirus pandemic. Apple also acknowledges that the pendency of this lawsuit was a factor in its decision to adopt the SBP. Under the Small Business Program:

- Existing developers who made up to \$1,000,000.00 in proceeds in 2020 for all their apps, as well as developers new to the App Store, can qualify for the program and a reduced commission rate of fifteen percent (15%) on paid apps and in-app purchases.
- If a participating developer surpasses the \$1,000,000.00 threshold, Apple's standard commission rate will apply to future sales.
- If a developer's proceeds fall below the \$1,000,000.00 threshold in a future calendar year, they can requalify for the fifteen percent (15%) commission the year after.
- Developers must identify any Associated Developer Accounts to determine proceeds eligibility.

2.4 On June 1, 2021, Named Plaintiffs filed a motion for class certification in the Action, seeking certification of a class of all U.S. developers of any Apple iOS application or in-app product (including subscriptions) sold for a non-zero price via Apple's iOS App Store at any time on or after June 4, 2015. On August 10, 2021, Apple filed its opposition to Plaintiffs' motion for class certification, along with a motion to exclude Plaintiffs' experts and a motion to compel a trial plan.

2.5 The Parties engaged in extensive, arm's-length negotiations over the course of the Action, with the assistance of the Hon. Layn R. Phillips (Ret.) of Phillips ADR, a former United States District Court Judge and one of the most experienced mediators in the United States. As a

result of these arm's-length negotiations, the Parties reached the Settlement set forth in this Settlement Agreement, which memorializes the Parties' agreement. The Parties intend that this Settlement completely resolve any and all claims that were, or could have been, asserted in the Action on behalf of the Settlement Class.

2.6 Apple vigorously disputes the claims alleged in the Action and is entering into this Settlement to avoid burdensome and costly litigation. The Settlement is not an admission of wrongdoing, fault, liability, or damage of any kind. Among other things, Apple disputes that Named Plaintiffs' claims have merit, that Named Plaintiffs will be able to certify any class in this Action for litigation purposes, and that Named Plaintiffs and the putative class would be entitled to any relief. Without admitting any of the allegations made in the Action or any liability whatsoever, Apple is willing to enter into this Settlement solely in order to eliminate the burdens, distractions, expense and uncertainty of protracted litigation and in order to obtain the releases and final judgment contemplated by this Settlement, and to provide additional assistance to the small developer community that is an integral part of the iOS ecosystem.

2.7 Class Counsel and the Named Plaintiffs believe that the claims asserted in the Action have merit and have examined and considered the benefits to be obtained under this Settlement, the risks associated with the continued prosecution of this complex and potentially time-consuming litigation, and the likelihood of ultimate success on the merits, and have concluded that the Settlement is fair, adequate, reasonable and in the best interests of the Settlement Class.

2.8 The Parties desire to settle the Action in its entirety with respect to all potential claims arising out of the same facts alleged in the complaints filed in the Action. The Parties

intend this Settlement Agreement to bind Apple, the Named Plaintiffs, and all other Settlement Class Members.

3. CONFIDENTIALITY

3.1 The Parties must comply with all portions of the Stipulated Protective Order (Dkt. 252) (as well as all Supplemental Protective Orders entered in the Action), including but not limited to Section 14 of the Stipulated Protective Order, which requires the return, destruction, or deletion of Protected Material (as defined in the Protective Order) within sixty (60) days of the final disposition of the Action.

3.2 This Settlement Agreement and its terms, including the fact of the proposed Settlement, shall remain completely confidential until all documents are executed and the Motion for Preliminary Approval is filed with the Court. Pending the filing of that Motion, Class Counsel may disclose this Settlement Agreement and its terms to their respective clients and experts as necessary for the implementation of this Settlement Agreement, who will also maintain the complete confidentiality of this Settlement Agreement and its terms, including the fact of the proposed Settlement.

4. CERTIFICATION OF THE SETTLEMENT CLASS

4.1 The Parties stipulate and agree that, subject to Court approval, the Settlement Class should be conditionally certified pursuant to Rule 23(b)(3) of the Federal Rules of Civil Procedure solely for purposes of the Settlement embodied in this Settlement Agreement. If, for any reason, this Settlement Agreement is not approved by the Court, the stipulation for certification and all of the agreements contained herein shall be considered null and void as provided in Section 8.5.

4.2 Apple does not consent to certification of the Settlement Class (or to the propriety of class treatment) for any purpose other than to effectuate this Settlement. For the avoidance of

doubt, Apple does not agree that this (or any) class of Developers could be certified for litigation purposes or that a trial of these claims would be manageable. Apple's agreement to provisional certification for purposes of settlement does not constitute an admission of wrongdoing, fault, liability, or damage of any kind, or that any class certification would be appropriate for litigation or any other purpose other than to effectuate this Settlement.

4.3 If for any reason the Effective Date does not occur or this Settlement Agreement is terminated, disapproved by any court (including any appellate court), or not consummated for any reason, the order certifying the Settlement Class for purposes of effectuating the Settlement (and all preliminary and final findings regarding that class certification order) shall be automatically vacated upon notice of the same to the Court. The Action shall then proceed as though the Settlement Class had never been certified pursuant to this Settlement Agreement and such findings had never been made, and the Action shall return to their procedural postures on the date this Settlement Agreement was signed. Additionally, the Parties and their counsel shall not contend that certification (or agreement to certification) of the Settlement Class supports certification of any litigation class if this Settlement Agreement is not consummated and the Action is later litigated and certification is contested by Apple under Rule 23 or any equivalent statute or rule.

5. SETTLEMENT CONSIDERATION

5.1 **Structural Relief.** In consideration of the releases and dismissals set forth in this Settlement Agreement, subject to Court approval, and subject to the other terms and conditions of this Settlement Agreement, Apple agrees that for a period of at least three (3) years following the Final Approval Order, Apple shall:

5.1.1 Maintain a commission rate of no greater than fifteen percent (15%) for U.S.

Developers who are enrolled participants in the Small Business Program,

pursuant to the terms and conditions of the Small Business Program and subject to program participation requirements.

5.1.2 Continue to drive App Store search results primarily by objective characteristics, including but not limited to downloads, star ratings, text relevance, and user behavior signals. Apple may also continue to include apps based on other characteristics, such as similar goals or developer association, as well as to give new and high-quality apps a chance to be found. Apple will also continue to conduct robust experimentation to drive continuous improvement.

5.1.3 Permit all U.S. Developers to communicate with their customers via email and other communication services outside their app about purchasing methods other than in-app purchase, provided that the customer consents to the communication and has the right to opt out. In-app communications, including via Apple Push Notification service, are outside the scope of this provision. Apple will revise its App Store Guidelines to permit the foregoing for all app categories, including by deleting from Guideline 3.1.3 the following language: “Developers cannot use information obtained within the app to target individual users outside of the app to use purchasing methods other than in-app purchase (such as sending an individual user an email about other purchasing methods after that individual signs up for an account within the app).”

5.1.4 Expand the choice of price points for subscriptions, in-app purchases, and paid apps from fewer than 100 to more than 500 (by December 31, 2022).

5.1.5 Maintain the option for U.S. Developers to appeal the rejection of an app based on unfair treatment and add online content to the app review portion of Apple’s developer website (<https://developer.apple.com/app-store/review/>) to explicitly note that a developer can appeal the rejection of an app when the developer believes that there has been unfair treatment by Apple in the review of any of the U.S. Developer’s apps, in-app products, or updates.

5.1.6 Publish an annual transparency report that, at a minimum, will convey meaningful statistics such as the number of apps rejected for different reasons, the number of customer and developer accounts deactivated, objective data regarding search queries and results, and the number of apps removed from the App Store.

5.2 **Covenant Not to Sue.** The members of the Settlement Class expressly agree to the appropriateness of Apple’s commission structure, including but not limited to the Small Business Program, as it applies to the Settlement Class. In light of the structural and monetary relief afforded by Apple pursuant to this Settlement Agreement, the members of the Settlement Class covenant not to sue Apple on any claim that was or could have been asserted in the Action.

5.3 **Small Developer Assistance Fund.** In light of the contributions made by Settlement Class Members to the app economy, particularly as the economy continues to suffer the effects of the Coronavirus pandemic, and in further consideration of the releases and dismissals set forth in this Settlement Agreement, subject to Court approval, and subject to the other terms and conditions of this Settlement Agreement, Apple shall establish a Small Developer Assistance Fund (“Small Developer Assistance Fund”).

5.3.1 Within thirty (30) days after an Order granting Preliminary Approval, Apple shall transfer \$2,000,000.00 into an account established by the Settlement Administrator for payment of the costs of settlement administration. Within thirty (30) days after the Effective Date, Apple shall transfer \$98,000,000.00 into an account established by the Settlement Administrator for the Small Developer Assistance Fund. Apple's total financial commitment under this Settlement Agreement shall be \$100,000,000.00.

5.3.2 The Settlement Administrator shall agree to hold the Small Developer Assistance Fund in an interest-bearing account and administer the Small Developer Assistance Fund, subject to the continuing jurisdiction of the Court and from the earliest possible date, as a qualified settlement fund as defined in Treasury Regulation § 1.468B-1 et seq. Any taxes owed by the Small Developer Assistance Fund shall be paid by the Settlement Administrator out of the Small Developer Assistance Fund. The interest earned in the aforementioned account shall be added to the Small Developer Assistance Fund.

6. DISPOSITION OF THE SMALL DEVELOPER ASSISTANCE FUND

6.1 The Small Developer Assistance Fund shall be applied as follows:

- 6.1.1 to pay the costs of notice and the costs of administering the Settlement, as set forth in Section 7 below;
- 6.1.2 to pay any approved Attorneys' Fees to Class Counsel as set forth in Section 9 below;
- 6.1.3 to pay any Court-approved Service Awards to Named Plaintiffs; and

6.1.4 to distribute the Net Small Developer Assistance Fund to Settlement Class Members as set forth in Section 6.2 and 6.3 below.

6.2 The Small Developer Assistance Fund will be distributed to all Settlement Class Members who have Approved Claims, with each such U.S. Developer entitled to a minimum payment of \$250.00 from the Net Small Developer Assistance Fund. U.S. Developers may qualify for a higher payment based on their historic participation in the App Store ecosystem. For all Approved Claims, the following amounts will be calculated based on Settlement Class Members' Proceeds from June 4, 2015 to December 31, 2020:

- 6.2.1 A Settlement Class Member who earned Proceeds of no more than \$100.00 from all of their Associated Developer Accounts will receive a minimum payment of \$250.00.
- 6.2.2 A Settlement Class Member who earned Proceeds of between \$100.01 and \$1,000.00 from all of their Associated Developer Accounts will receive a minimum payment of \$500.00.
- 6.2.3 A Settlement Class Member who earned Proceeds of between \$1,000.01 and \$5,000.00 from all of their Associated Developer Accounts will receive a minimum payment of \$1,000.00.
- 6.2.4 A Settlement Class Member who earned Proceeds of between \$5,000.01 and \$10,000.00 from all of their Associated Developer Accounts will receive a minimum payment of \$1,500.00.

- 6.2.5 A Settlement Class Member who earned Proceeds of between \$10,000.01 and \$50,000.00 from all of their Associated Developer Accounts will receive a minimum payment of \$2,000.00.
 - 6.2.6 A Settlement Class Member who earned Proceeds of between \$50,000.01 and \$100,000 from all of their Associated Developer Accounts will receive a minimum payment of \$3,500.00.
 - 6.2.7 A Settlement Class Member who earned Proceeds of between \$100,000.01 and \$250,000.00 from all of their Associated Developer Accounts will receive a minimum payment of \$5,000.00.
 - 6.2.8 A Settlement Class Member who earned Proceeds of between \$250,000.01 and \$500,000.00 from all of their Associated Developer Accounts will receive a minimum payment of \$10,000.00.
 - 6.2.9 A Settlement Class Member who earned Proceeds of between \$500,000.01 and \$1,000,000.00 from all of their Associated Developer Accounts will receive a minimum payment of \$20,000.00.
 - 6.2.10 A Settlement Class Member who earned Proceeds of over \$1,000,000.01 from all of their Associated Developer Accounts will receive a minimum payment of \$30,000.00.
- 6.3 The minimum payment amounts set forth in Section 6.2 above assume that one hundred percent (100%) of Settlement Class Members have an Approved Claim. If not all Settlement Class Members have an Approved Claim, then the minimum payment amounts to Settlement Class Members with Approved Claims shall increase

proportionally in correspondence with the same categories of Developer Proceeds as contained in Section 6.2.

6.4 The minimum payment amounts set forth in Section 6.2 above assume that the Net Small Developer Assistance Fund is approximately \$68 million. The actual amount could be greater or less depending on the costs of administration, any Service Awards, and the amounts awarded by the Court for attorneys' fees and expenses pursuant to Section 9.1.

6.5 Within sixty (60) days after receiving the Small Developer Assistance Funds pursuant to Section 5.3, the Settlement Administrator shall have substantially completed the issuance of the initial payments to the Settlement Class Members with Approved Claims, which shall be sent to Settlement Class Members through electronic distribution, or in the form of physical checks mailed to the Settlement Class Member's mailing address as contained in Apple's company records or set forth on the Claim Form for those Settlement Class Members for whom electronic distribution is not available. To the extent economically and practically feasible, the Settlement Administrator shall follow up and communicate with Settlement Class Members who have not cashed their checks within sixty (60) days of distribution. Unused checks shall expire not later than the first anniversary of the initial date of distribution.

6.6 Following distribution of the Small Developer Assistance Fund as set forth in Sections 6.1-6.3, if approved by the Court, any remaining funds (including any funds from uncashed checks) will be used as a *cy pres* distribution to Girls Who Code, a nonprofit organization working to close the gender gap in technology and to change the image of what a programmer looks like and does, or another similar charitable organization

as approved by the Court. Under no circumstances will Small Developer Assistance Funds revert to Apple.

7. NOTICE AND SETTLEMENT ADMINISTRATION.

7.1 **Neutral Settlement Administrator.** Subject to Court approval, the Settlement Administrator shall provide settlement notice and administration services, in accordance with the terms of this Settlement Agreement and as ordered by the Court in the Preliminary Approval Order. As provided in Section 6.1.1, the reasonable costs of notice and the costs of administering the Settlement shall be paid out of the Small Developer Assistance Fund.

7.2 **Notice Procedures.** The Parties agree to the following forms and methods of notice to the Settlement Class:

7.2.1 A copy of the Class Notice, together with the Claim Form, the Settlement, the motions for Final Approval Order and Final Judgment, and Attorneys' Fees, and Court orders pertaining to the Settlement, shall be posted and available for download on the Settlement Website maintained by the Settlement Administrator.

7.2.2 The Settlement Administrator shall send a copy of the Summary Notice to the email and physical addresses for Associated Developer Accounts of developers who are or reasonably may be members of the Settlement Class. The electronic version of the Summary Notice shall contain a direct link to the Settlement Website and the instructions for the Claim Form. To facilitate the distribution of the Summary Notice, within thirty (30) days of the date of execution of the Settlement Agreement, Apple shall provide the Settlement Administrator with the email and physical addresses for Associated Developer Accounts of

developers who are or reasonably may be members of the Settlement Class, along with transactional data produced in this Action sufficient to calculate Proceeds for purposes of implementing this Agreement.

- 7.2.3 The names, email addresses, physical mailing addresses, and Proceeds of Associated Developer Accounts are personal information about the potential members of the Settlement Class and shall be provided to the Settlement Administrator solely for the purposes of providing notice, processing requests for exclusion, and administering payment. The Settlement Administrator shall execute the Stipulated Protective Order (Dkt. 252), treat all such information as “Highly Confidential – Attorneys’ Eyes Only,” and take all reasonable steps to ensure that all such information is used solely for the purpose of administering this Settlement.
- 7.2.4 The Settlement Administrator shall commence the notice by the Notice Date. If, despite using best efforts, the Settlement Administrator is unable to commence the notice by the Notice Date, the Settlement Administrator shall inform the Parties of the status of the notice, and notify the Parties when the notice has been commenced.
- 7.2.5 In addition to the notice required by the Court, the Parties may jointly agree to provide additional notice to the members of the Settlement Class, although Class Counsel and Apple must both approve any additional notice.
- 7.2.6 If this notice plan is not approved, or is modified in a material way by the Court, the Parties shall have the right to terminate the Settlement.

7.3 Claim Form. Settlement Class Members who wish to receive a cash payment will be required to submit a Claim Form. The Claim Form shall, among other things, require the Settlement Class Member to certify, under penalty of perjury, that (a) they have only one Associated Developer Account, or (b) if they have more than one Associated Developer Account, that they have identified all Associated Developer Accounts in a manner to be specified in the Claim Form. The Claim Forms shall be submitted to the Settlement Administrator via U.S. mail or electronically through the Settlement Website.

7.4 Claims Period. To be valid, Claim Forms, requests to opt out, and objections must be received by the Settlement Administrator within one hundred and twenty (120) days from the Notice Date.

7.5 Process for Opting Out of Settlement. The Class Notice shall provide a procedure whereby members of the Settlement Class may exclude themselves from the Settlement. The members of the Settlement Class shall have no less than sixty (60) days following the Notice Date to exclude themselves. Any member of the Settlement Class who does not timely and validly request exclusion shall be a Settlement Class Member and shall be bound by the terms of this Settlement. As soon as practicable after the opt-out deadline, the Settlement Administrator shall provide the Court and the Parties with a list of Settlement Class Members who timely and validly requested exclusion from the Settlement.

7.6 Process for Objections. The Class Notice shall provide a procedure whereby Settlement Class Members may object to the Settlement. All objections shall be filed with the Court ^{sixty-six (66)} ~~and served on Class Counsel and Defense Counsel~~ within ~~sixty (60)~~ days from the Notice Date. Any objection shall, at a minimum, require the individual to provide: (a) a detailed statement of such Settlement Class Member's specific objections to any matters before the Court;

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(b) the grounds for such objections and the reason such Settlement Class Member desires to appear and to be heard; and (c) proof of membership in the Settlement Class, as well as all other materials the Settlement Class Member wants the Court to consider.

7.7 Review of Claims Submitted. The Settlement Administrator shall determine whether a submitted Claim Form meets the requirements set forth in this Settlement Agreement. Each Claim Form shall be submitted to and reviewed by the Settlement Administrator, who shall determine whether each Claim shall be allowed. The Settlement Administrator shall use best practices and all reasonable efforts and means to identify and reject duplicate and/or fraudulent claims.

7.8 Rejection of Claims Forms. Claim Forms that do not meet the requirements set forth in this Settlement and/or in the Claim Form instructions shall be rejected by the Settlement Administrator. The Settlement Administrator shall have thirty (30) days from the end of the Claims Period to exercise the right of rejection. The Settlement Administrator shall notify the claimant using the contact information provided in the Claim Form of the rejection. Class Counsel and Defense Counsel shall be provided with copies of all such notifications of rejection, provided that the copies do not contain the name, email address, mailing address, or other personal identifying information of the claimant. If any claimant whose Claim Form has been rejected, in whole or in part, desires to contest such rejection, the claimant must, within ten (10) days from receipt of the rejection, transmit to the Settlement Administrator by email or U.S. mail a notice and statement of reasons indicating the claimant's grounds for contesting the rejection, along with any supporting documentation, and requesting further review by the Settlement Administrator, in consultation with Class Counsel and Defense Counsel, of the denial of the Claim. If Class Counsel and Defense Counsel cannot agree on a resolution of the claimant's notice contesting the rejection,

the disputed Claim shall be presented to the Court or a referee appointed by the Court for summary and non-appealable resolution. No person shall have any claim against Apple, Defense Counsel, the Named Plaintiffs, Class Counsel, and/or the Settlement Administrator based on any eligibility determinations, distributions, or awards made in accordance with this Settlement. This provision does not affect or limit in any way the right of review by the Court or referee of any disputed Claim Forms as provided in this Settlement.

7.9 Information Regarding Claims Submitted, Approved, and Rejected. Within forty-five (45) days from the end of the Claims Period, the Settlement Administrator shall provide a spreadsheet to Class Counsel and Defense Counsel that contains information sufficient to determine: (a) the number of Settlement Class Members that submitted a claim; (b) the number of submitted Claim Forms that are valid and timely and the number that were not valid and/or timely; (c) the number of submitted Claim Forms the Settlement Administrator intends to treat as Approved Claims; and (d) the number of submitted Claim Forms the Settlement Administrator has denied and the reason(s) for the denials. The Settlement Administrator shall provide supplemental spreadsheets with respect to the resolution of any rejected claims or any Claim Forms submitted after the expiration of the deadline, within a reasonable time after such resolution or receiving such Claim Forms. The materials that the Settlement Administrator provides to Class Counsel pursuant to this paragraph shall not contain the names, email addresses, mailing addresses, or other personal identifying information of the Settlement Class Members. The Settlement Administrator shall retain the originals of all Claim Forms (including envelopes with postmarks, as applicable), and shall make copies available to Class Counsel or Defense Counsel (with redactions to remove the names, email addresses, mailing addresses, or other personal identifying information of the Settlement Class Members) upon request. All such spreadsheets and related materials (including

Claim Forms) shall be designated as “Highly Confidential – Attorneys’ Eyes Only” as provided in Section 7.2.3. Should Class Counsel believe they require the name, email address, mailing address, or other personal identifying information of any particular Settlement Class Member, the Parties shall meet-and-confer, on a case-by-case basis, to determine whether the release of such personal identifying information is necessary. Any disputes regarding whether such information may be released to Class Counsel shall be presented to the Court or a referee appointed by the Court for summary and non-appealable resolution. The Settlement Administrator shall only release personal identifying information upon authorization of Apple and/or the authorization of the Court or referee.

7.10 Opportunity for Review. Defense Counsel and Class Counsel shall have fourteen (14) days after receiving the spreadsheet(s) and information specified in Section 7.9 to contest the Settlement Administrator’s determination with respect to any of the submitted Claims. Defense Counsel and Class Counsel shall meet and confer in good faith within ten (10) days to reach resolution of any such disputed Claim(s). If Class Counsel and Defense Counsel cannot agree on a resolution of any such disputed Claim(s), the disputed Claim(s) shall be presented to the Court or a referee appointed by the Court for summary and non-appealable resolution.

8. COURT APPROVAL

8.1 The Parties agree to recommend approval of the Settlement to the Court as fair and reasonable and to undertake their best efforts to obtain such approval. “Best efforts” includes that the Parties may not oppose any application for appellate review by one of the Parties in the event the Court denies preliminary or final approval. The Parties therefore agree that, at 5:00 PM Pacific time on August 26, 2021, the Named Plaintiffs shall submit this Settlement Agreement to the Court and shall apply for entry of the Preliminary Approval Order.

8.2 Class Counsel shall draft the Motion for Preliminary Approval requesting issuance of the Preliminary Approval Order as soon as practicable after execution of this Settlement Agreement, and shall provide that draft to Defense Counsel on or before August 24, 2021. The Motion for Preliminary Approval shall be written in a neutral manner that does not contain inflammatory language about the Parties or their perceived conduct in the Action. The Parties shall agree on the form of all exhibits attached to the Motion for Preliminary Approval, including but not limited to the Notice, the Summary Notice, and the Claims Form.

8.3 Upon filing of the Motion for Preliminary Approval, Apple shall provide timely notice of the Settlement as required by the Class Action Fairness Act, 28 U.S.C. § 1711, *et seq.*

8.4 In accordance with the schedule set in the Preliminary Approval Order, Class Counsel shall draft the motion for Final Approval Order and Final Judgment and shall provide that draft to Defense Counsel at least seven (7) days before filing such motion with the Court.

8.5 In the event that the Settlement is not approved (following the exhaustion of any appellate review), then (a) this Settlement Agreement shall be null and void and of no force or effect, (b) any payments made to the Settlement Administrator, including any and all interest earned thereon less monies expended toward settlement administration and/or Small Developer Assistance Fund, shall be returned to Apple within ten (10) days from the date the Settlement Agreement becomes null and void, (c) any release shall be of no force or effect, and (d) neither the Settlement Agreement nor any facts concerning its negotiation, discussion, terms or documentation shall be referred to or used as evidence or for any other purpose whatsoever in the Action or in any other action or proceeding. In such event, the Action will proceed as if no settlement has been attempted, and the Parties shall be returned to their respective procedural postures existing on the date the Settlement is executed, so that the Parties may take such litigation steps that they otherwise

would have been able to take absent the pendency of this Settlement. However, any reversal, vacatur, or modification on appeal of (a) any amount of the Attorneys’ Fees and Expenses awarded by the Court to Class Counsel, or (b) any determination by the Court to award less than the amounts requested in Attorneys’ Fees and Expenses or Named Plaintiff Service Awards shall not give rise to any right of termination or otherwise serve as a basis for termination of this Settlement.

9. ATTORNEYS’ FEES

9.1 Class Counsel may submit an application or applications to the Court for distribution to them from the Small Developer Assistance Fund of an award of attorneys’ fees and expenses incurred in connection with prosecuting the Action and as may be awarded by the Court (the “Fee and Expense Award”). Apple reserves the right to object to or oppose a request for attorneys’ fees and expenses.

9.2 The Fee and Expense Award, as approved by the Court, shall be paid solely from the Small Developer Assistance Fund to an account designated by Class Counsel within forty-five (45) days after the Effective Date.

9.3 Class Counsel has the authority and responsibility to allocate and distribute the awarded funds to other counsel based, in its sole discretion, on counsel’s efforts and contributions in the Action, provided that the allocation and distribution is consistent with the Court’s order(s) regarding the Fee and Expense Award. Apple and Defense Counsel shall have no liability or other responsibility for allocation of any such awarded funds, and, in the event that any dispute arises relating to the allocation of fees or costs, Class Counsel and the Settlement Administrator agree to hold Apple and Defense Counsel harmless from any and all such liabilities, costs, and expenses of such dispute.

9.4 Apple shall not be liable for any additional fees or expenses of the Named Plaintiffs or any Settlement Class Member in connection with the Action. Class Counsel agree that they will not seek any additional fees, expenses, or costs from Apple in connection with the Action or the settlement of the Action beyond the approved Fee and Expense Award. Apple expressly agrees that it will not seek to recover its attorneys' fees, expenses, or costs from the Named Plaintiffs or Class Counsel once this Settlement Agreement becomes effective pursuant to the Effective Date.

9.5 The Court's Fee and Expense Award shall be separate from its determination of whether to approve the Settlement. In the event the Court approves the Settlement, but declines to award Class Counsel's attorneys' fees or expenses in the amounts requested by Class Counsel, the Settlement will nevertheless be binding on the Parties.

10. RELEASES AND DISMISSAL OF ACTION

10.1 As of the Effective Date, the Settlement Class Members and their respective heirs, executors, administrators, representatives, agents, partners, successors, and assigns shall have fully, finally, and forever released, relinquished, and discharged any and all past, present, and future claims, actions, demands, causes of action, suits, debts, obligations, damages, rights and liabilities, that were brought, could have been brought, or ^{arise from} ~~are related to~~ the same facts underlying the claims asserted in the Action, known or unknown, recognized now or hereafter, existing or preexisting, expected or unexpected, pursuant to any theory of recovery (including, but not limited to, those based in contract or tort, common law or equity, federal, state, territorial, or local law, statute, ordinance, or regulation), against the Released Parties, for any type of relief that can be released as a matter of law, including, without limitation, claims for monetary relief, damages (whether compensatory, consequential, punitive, exemplary, liquidated, and/or statutory), costs, penalties, interest, attorneys' fees, litigation costs, restitution, or equitable relief. By example only,

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and without limitation, the Settlement Class Members expressly release any claim, contention, argument, or theory that the commissions charged by Apple on paid downloads or in-app purchases of digital content (including subscriptions) through the App Store are supracompetitive, inflated, or otherwise set at unlawful amounts. Accordingly, the Settlement shall terminate the Action. Notwithstanding the foregoing, the release shall not include any claims relating to the continued enforcement of the Settlement or the Protective Orders.

10.2 As of the Effective Date, the Named Plaintiffs and their respective heirs, executors, administrators, representatives, agents, partners, successors, and assigns shall have fully, finally, and forever released, relinquished, and discharged any and all past, present, and future claims, actions, demands, causes of action, suits, debts, obligations, damages, rights and liabilities, that ^{arise from} ~~are related to~~ were brought, could have been brought, or ~~are related to~~ the same facts underlying the claims asserted in the Action regarding the App Store, known or unknown, recognized now or hereafter, existing or preexisting, expected or unexpected, pursuant to any theory of recovery (including, but not limited to, those based in contract or tort, common law or equity, federal, state, territorial, or local law, statute, ordinance, or regulation), against the Released Parties, for any type of relief that can be released as a matter of law, including, without limitation, claims for monetary relief, damages (whether compensatory, consequential, punitive, exemplary, liquidated, and/or statutory), costs, penalties, interest, attorneys' fees, litigation costs, restitution, or equitable relief. Notwithstanding the foregoing, the release shall not include any claims relating to the continued enforcement of the Settlement or the Protective Orders.

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10.3 After entering into this Settlement, the Settlement Class Members and/or Named Plaintiffs may discover facts other than, different from, or in addition to, those that they know or believe to be true with respect to the claims released by this Settlement, but they intend to release

fully, finally and forever any and all such claims. The Settlement Class Members and Named Plaintiffs expressly agree that, upon the Effective Date, they waive and forever release any and all provisions, rights, and benefits conferred by:

(a) Section 1542 of the California Civil Code, which reads:

A GENERAL RELEASE DOES NOT EXTEND TO CLAIMS THAT THE CREDITOR OR RELEASING PARTY DOES NOT KNOW OR SUSPECT TO EXIST IN HIS OR HER FAVOR AT THE TIME OF EXECUTING THE RELEASE AND THAT, IF KNOWN BY HIM OR HER, WOULD HAVE MATERIALLY AFFECTED HIS OR HER SETTLEMENT WITH THE DEBTOR OR RELEASED PARTY.

and

(b) any law of any state, territory, or possession of the United States (or for the non-U.S. Named Plaintiffs, their respective country, province, or state), or principle of common law, which is similar, comparable, or equivalent to Section 1542 of the California Civil Code.

10.4 Upon the Effective Date, the Action shall be dismissed with prejudice. Class Counsel shall have the responsibility for ensuring that the Action is dismissed with prejudice in accordance with the terms of this Settlement.

10.5 The Court shall retain jurisdiction over this Action to enforce the terms of this Settlement. In the event that any applications for relief are made, such applications shall be made to the Court. To avoid doubt, the Final Judgment applies to and is binding upon the Parties, the Settlement Class Members, and their respective heirs, successors, and assigns.

11. DEFENDANT'S DENIAL OF LIABILITY; AGREEMENT AS DEFENSE IN FUTURE PROCEEDINGS

11.1 Apple has indicated its intent to vigorously contest each and every claim in the Action, and denies all of the material allegations in the Action. Apple enters into this Settlement

Agreement without in any way acknowledging any fault, liability, or wrongdoing of any kind. Apple nonetheless has concluded that it is in its best interests that the Action be settled on the terms and conditions set forth herein in light of the expense that would be necessary to defend the Action, the benefits of disposing of protracted and complex litigation, and the desire of Apple to conduct its business and provide additional assistance to the small developer community unhampered by the distractions of continued litigation.

11.2 Neither this Settlement Agreement, nor any of its terms or provisions, nor any of the negotiation or proceedings connected with it, shall be construed as an admission or concession by Apple of the truth of any of the allegations in the Action, or of any liability, fault, or wrongdoing of any kind.

11.3 To the extent permitted by law, this Settlement Agreement may be pleaded as a full and complete defense to, and may be used as the basis for an injunction against, any action, suit, or other proceeding which may be instituted, prosecuted, or attempted for claims, causes of action, and/or theories of relief covered by the covenant not to sue and/or the releases in this Settlement Agreement.

12. MODIFICATION OR TERMINATION OF THE SETTLEMENT

12.1 Apple may, at its sole discretion, terminate this Settlement Agreement if the number of Developers who seek exclusion from the Settlement Class exceeds 10% of the total number of Developers in the Settlement Class.

12.2 The terms and provisions of this Settlement Agreement may be amended, modified, or expanded by written agreement of the Parties and approval of the Court; provided, however, that after entry of the Final Approval Order and Final Judgment, the Parties may by written agreement effect such amendments, modifications, or expansions of this Settlement Agreement

and its implementing documents (including all exhibits) without further notice to the Settlement Class or approval by the Court if such changes are consistent with the Court's Final Approval Order and Final Judgment and do not materially alter, reduce, or limit the rights of Settlement Class Members.

12.3 If any of the non-monetary terms of this Agreement are affected by a change in legislation, regulation, law, court or agency order, or any material change in circumstances, the Parties agree to meet and confer in good faith regarding an appropriate modification of the Agreement.

12.4 In the event the terms or conditions of this Settlement Agreement, other than terms pertaining to the Attorneys' Fees, are materially modified by any court, the Parties may within thirty (30) days of such material modification, declare this Settlement null and void as provided in Section 8.5. For purposes of this paragraph, material modifications include any modifications to the definitions of the Settlement Class, Settlement Class Members, Released Parties, or the scope of the releases (as provided in Sections 10.1 and 10.2), any modifications to the terms of the Settlement consideration (as provided in Sections 5.1 - 5.3). In the event of any modification by any court, and in the event Apple does not exercise its unilateral option to withdraw from this Settlement, the Parties shall meet and confer within fourteen (14) days of such modification to attempt to reach an agreement as to how best to effectuate the court-ordered modification.

12.5 If the Effective Date is not reached, this Settlement Agreement is without prejudice to the rights of any party hereto, and all terms, negotiations, and proceedings connected therewith shall not be deemed or construed to be an admission by any Party or evidence of any kind in this Action or any other action or proceeding.

13. NOTICES

13.1 All notices to Named Plaintiffs shall be delivered to:

Steve W. Berman
Robert F. Lopez
Hagens Berman Sobol Shapiro LLP
1301 Second Ave., Suite 2000
Seattle, WA 98101

13.2 All notices to Apple shall be delivered to:

Heather Grenier
Senior Director, Commercial Litigation
Apple Inc.
One Apple Park Way, MS 60-1AL
Cupertino, CA 95014

With a copy to:

Mark A. Perry
Gibson, Dunn & Crutcher LLP
1050 Connecticut Ave., NW
Washington, D.C. 20036

13.3 The notice recipients and addresses designated in paragraphs 13.1 and 13.2 may be changed upon written notice provided to all individuals identified in those paragraphs.

14. MISCELLANEOUS

14.1 This Settlement Agreement may not be modified in any respect except upon the written consent of the Parties.

14.2 The undersigned each represent and warrant that each has authority to enter into this Settlement Agreement on behalf of the Party indicated below his or her name.

14.3 If, prior to the Effective Date, Class Counsel knows, or has reason to know, of any Named Plaintiff who intends to exclude himself or herself from the Settlement or who intends to submit an objection to the Settlement, Class Counsel shall promptly notify Defense Counsel within three (3) days. The Parties shall thereafter meet and confer within seven (7) days of such

notification to determine whether any modifications to the Settlement, or any other actions or filings, are required.

14.4 Class Counsel and the Named Plaintiffs represent and warrant that they have not assigned or transferred, or purported to assign or transfer, to any person or entity, any claim or any portion thereof or interest therein, including, but not limited to, any interest in the Action or any related action, and they further represent and warrant that they know of no such assignments or transfers on the part of any member of the Settlement Class.

14.5 The Parties, together with Class Counsel and Defense Counsel, have jointly participated in the drafting of this Settlement Agreement. No Party hereto shall be considered the drafter of this Settlement Agreement or any provision hereof for the purpose of any statute, case law or rule of interpretation or construction that would or might cause any provision to be construed against the drafter hereof.

14.6 As used in this Settlement Agreement, the masculine, feminine, or neutral gender, and the singular or plural wording, shall each be deemed to include the others whenever the context so indicates.

14.7 Unless otherwise noted, all references to “days” in this Settlement Agreement shall be to calendar days. In the event any date or deadline set forth in this Settlement Agreement falls on a weekend or federal legal holiday, such date or deadline shall be on the first business day thereafter.

14.8 Any and all disputes arising from or related to this Settlement Agreement must be brought by the Parties, Class Counsel, Defense Counsel, and/or members of the Settlement Class exclusively to the Court. The Parties, Class Counsel, Defense Counsel and members of the Settlement Class irrevocably submit to the exclusive and continuing jurisdiction of the Court for

any suit, action, proceeding, or dispute arising out of or relating to this Settlement Agreement. All terms of this Settlement Agreement and any suit, action, proceeding, or dispute arising out of or relating to this Settlement Agreement shall be governed by and interpreted according to the substantive laws of the State of California without regard to choice of law or conflicts of laws principles; however, nothing in this Settlement Agreement shall operate as a waiver of any Party's position regarding the applicable law governing the underlying claims at issue in the Action.

14.9 Unless otherwise ordered by the Court, the Parties may jointly agree to reasonable extensions of time to carry out any of the provisions of this Settlement Agreement.

14.10 Unless otherwise ordered by the Court, all motions, discovery, and other proceedings in the Action shall be stayed until the Court enters the Final Approval Order and Final Judgment, or this Settlement Agreement is otherwise terminated.

14.11 Nothing in this Settlement Agreement shall alter or abrogate any prior Court orders entered in the Action.

14.12 This Settlement Agreement may be executed in counterparts. Facsimile or PDF signatures shall be considered valid as of the date they bear.

14.13 The Parties, together with Class Counsel and Defense Counsel, agree to prepare and execute all documents, to seek Court approvals, to defend Court approvals, and to do all things reasonably necessary to complete the Settlement.

14.14 This Settlement Agreement is executed voluntarily by each of the Parties without any duress or undue influence on the part, or on behalf, of any of them. The Parties represent and warrant to each other that they have read and fully understand the provisions of this Settlement Agreement and have relied on the advice and representation of legal counsel of their own choosing.

14.15 This Settlement Agreement may be amended or modified only by a written instrument signed by Defense Counsel and Class Counsel and approved by the Court.

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The Parties have agreed to the terms of this Settlement Agreement and have signed below.

For the Named Plaintiffs:



Steve W. Berman
Hagens Berman Sobol Shapiro LLP
1301 Second Ave., Suite 2000
Seattle, WA 98101

Dated: August 24, 2021

For Apple:



Heather Grenier
Senior Director, Commercial Litigation
Apple Inc.
One Apple Park Way, MS 60-1AL
Cupertino, CA 95014

Dated: August 24, 2021

EXHIBIT 15

PLEASE READ THE FOLLOWING STOREKIT EXTERNAL PURCHASE LINK ENTITLEMENT ADDENDUM TO THE APPLE DEVELOPER PROGRAM LICENSE AGREEMENT CAREFULLY BEFORE DOWNLOADING OR USING THE APPLE SOFTWARE OR APPLE SERVICES. THESE TERMS AND CONDITIONS CONSTITUTE A LEGAL AGREEMENT BETWEEN YOU AND APPLE AND ARE IN ADDITION TO THE TERMS OF THE APPLE DEVELOPER PROGRAM LICENSE AGREEMENT. IF YOU DO NOT OR CANNOT ACCEPT THIS STOREKIT EXTERNAL PURCHASE LINK ENTITLEMENT ADDENDUM, YOU ARE NOT PERMITTED TO USE THE APPLE SOFTWARE OR SERVICES. IF YOU ARE ACCESSING THIS ADDENDUM ELECTRONICALLY, SIGNIFY YOUR AGREEMENT TO BE BOUND BY THE TERMS OF THIS ADDENDUM BY CLICKING THE “AGREE” BUTTON. IF YOU DO NOT AGREE TO THE TERMS OF THIS ADDENDUM, CLICK “DISAGREE”.

StoreKit External Purchase Link Entitlement Addendum for Netherlands Dating Apps (to the Apple Developer Program License Agreement)

This StoreKit External Purchase Link Entitlement Addendum for Netherlands Dating Apps (“**Addendum**”) is in addition to the terms of the Apple Developer Program License Agreement (“**Developer Agreement**”). To enter into this Addendum, You must be a member in good standing of the Apple Developer Program and You must have entered into the current terms of the Developer Agreement. Defined terms not defined herein shall have the same meaning as set forth in the Developer Agreement.

1. Definitions

“**Alternative Billing System**” means a billing system for the sale of digital goods and services that does not use the In-App Purchase API.

“**Apple Materials**” means the Documentation, Entitlement Profile, and other materials provided by Apple to You, and which are incorporated by reference into the requirements of this Addendum.

“**Entitlement Profile**” means the entitlement profile that may be made available to You by Apple under this Addendum that permits Your Application to use links from Your Application to an external website for purchases using an Alternative Billing System in accordance with the requirements of this Addendum.

“**StoreKit External Purchase Link Dating App (NL)**” means Your Application that has been granted an Entitlement Profile.

“**StoreKit External Purchase Link APIs**” means the restricted Application Programming Interfaces (“APIs”) contained in the Apple Software or provided as web APIs that enable approved developers to use Apple’s StoreKit External Purchase Link APIs.

“**Transaction**” means the immediate and future sale of digital goods and services to End-Users in the Netherlands (including one-time purchases, subscriptions, and the associated auto-renewals), resulting from a link out from Your StoreKit External Purchase Link Dating App (NL) to an external website with an Alternative Billing System including (a) any applicable taxes and (b) any adjustments for refunds, reversals and chargebacks.

“**Transaction Reports**” means reports of all Transactions for a fiscal week (Sunday through Saturday), in the form instructed by Apple.

2. Entitlement Profile, Licenses and Restrictions

2.1 You understand that You will need to request an Entitlement Profile on the Apple Developer Program web portal prior to use of links from Your Application to an external website for purchases using an Alternate Billing System. To obtain an Entitlement Profile, Your Application must:

- Be distributed through the Netherlands App Store on devices running iOS or iPadOS;
- Have as its primary purpose being a dating app, and its principal use must be as a dating

app;

- Meet the requirements set forth in Section 4.2 of this Addendum;
- Link to a website that You own or have responsibility for;
- Not offer in-app purchases when Your Application is distributed through the Netherlands App Store on devices running iOS or iPadOS; and
- Meet all additional requirements provided in the Apple Materials.

2.2. The Entitlement Profile is compatible and may only be used with Applications distributed through the Netherlands App Store, on devices running iOS or iPadOS.

2.3 You may use the Entitlement Profile only with the StoreKit External Purchase Link Dating App (NL) for which You requested the Entitlement Profile and for which Apple approved the Entitlement Profile. You agree to submit true, accurate, and complete information to Apple regarding Your requested use of the StoreKit External Purchase Link Entitlement and APIs, and to update Apple according to instructions provided in the Apple Materials if any of Your information changes. Apple will review Your request and reserves the right to not provide You with the Entitlement Profile in its sole discretion, in which case You will not be able to use the StoreKit External Purchase Link Entitlement or StoreKit External Purchase Link APIs, and to revoke such Entitlement Profile, at any time in its sole discretion. Apple will not be liable to You for declining Your request for the StoreKit External Purchase Link Entitlement or to access the StoreKit External Purchase Link APIs even if You have agreed to this Addendum.

2.4 You acknowledge and agree that You will not use links from Your Application to an external website for purchases using an Alternate Billing System unless You have received an Entitlement Profile from Apple. If You receive an Entitlement Profile, then subject to the terms and conditions of this Addendum and the Developer Agreement, Apple hereby grants You during the Term a limited, non-exclusive, personal, revocable, non-sublicensable and non-transferable license to:

(a) distribute the Entitlement Profile to Your Authorized Developers for testing and developing Your StoreKit External Purchase Link Dating App (NL); and

(b) use the Entitlement Profile with Your StoreKit External Purchase Link Dating App (NL) solely on Authorized Test Devices, Registered Devices, and for submission to the App Store pursuant to **Section 6 (Application Submission and Selection)** of the Developer Agreement.

2.5 You agree to use, only through the use of the Entitlement Profile, links from Your StoreKit External Purchase Link Dating App (NL) to an external website for purchases using an Alternate Billing System only as expressly permitted in this Addendum and in the Apple Materials. You agree not to use or attempt to use the Entitlement Profile in or with any of Your Applications not granted the Entitlement Profile or with any other developers' applications. For clarity, You may not use the Entitlement Profile with applications developed or distributed under any other Apple Developer agreements (e.g., the Apple Developer Enterprise Program License Agreement). You are permitted to use the Entitlement Profile only in connection with Your StoreKit External Purchase Link Dating App (NL) developed or distributed under this Addendum and with Apple-branded products.

2.6 You further agree to keep updated the information You provided to Apple to obtain an Entitlement Profile, and You acknowledge that changes may affect Your continued eligibility for an Entitlement Profile.

2.7 While in no way limiting Apple's other rights under the Developer Agreement, if Apple has reason to believe You or Your StoreKit External Purchase Link Dating App (NL) have failed to comply with the requirements of this Addendum or the Developer Agreement, Apple reserves the right to revoke to Your access to any or all of the StoreKit External Purchase Link APIs immediately upon notice to You; require You to remove Your Entitlement Profile from Your StoreKit External Purchase Link Dating App (NL) and resubmit it; hide or remove Your StoreKit External Purchase Link Dating App (NL) from the App Store; and/or to remove You from the Apple Developer Program.

3. StoreKit External Purchase Link Program Technical Requirements

You must meet the following External Purchase Link technical requirements, as well as the requirements provided in the Apple Materials and the Program Requirements contained in **Section 3.3** of the Developer Agreement, as they may be modified by Apple from time to time.

3.1 You must call the SKStorefront API or storefront API and determine that the End-User is a user of the Netherlands App Store prior to displaying a link from Your Application to an external website for purchases using Your Alternate Billing System.

3.2 Prior to each instance listed in Section 3.3, You must surface to the End-User a disclosure regarding Your Alternative Billing System that comports with the requirements provided in the Apple Materials. You must provide this disclosure as follows:

- Apple released a StoreKit External Purchase Link API with iOS 15.4 and iPadOS 15.4 that provides the disclosure. This API also incorporates the functionality of the SKStorefront API or storefront API. For End-Users on iOS 15.4 or iPadOS 15.4 and later, you must use this API to surface the disclosure.
- For End-Users on earlier qualifying versions of iOS or iPadOS, You must provide the disclosure, and must attach to Your app submission in App Store Connect screenshots showing where Your StoreKit External Purchase Link Dating App (NL) provides this disclosure.

3.3 You must provide the disclosure referenced in Section 3.2 prior to each instance of linking from Your StoreKit External Purchase Link Dating App (NL) to an external website for purchases using Your Alternate Billing System, until the End-User has tapped “I Understand” in Your StoreKit External Purchase Link Dating App (NL), on a per-device basis.

3.4 Prior to any instance of linking from Your StoreKit External Purchase Link Dating App (NL) to an external website for purchases using Your Alternate Billing System, You must do the following:

- Unless You are calling the StoreKit External Purchase Link API described in Section 3.2, call the SKStorefront API or storefront API and determine that the End-User is a user of the Netherlands App Store; and
- Call the canMakePayments API and determine that the End-User may authorize payments.

3.5 The link You are permitted to provide in Your StoreKit External Purchase Link Dating App (NL) under this Addendum must:

- Link to a website You own or have responsibility for, and whose domain you have registered with and obtained approval for from Apple;
- Open a new window in the default browser on the device, and may not open a web view;
- Not pass additional parameters in the URL, in order to protect the End-User (for example, their privacy);
- Be submitted with Your StoreKit External Purchase Link Dating App (NL) to the App Store, and shall be resubmitted if the URL changes;
- Be statically-defined in the <<SKExternalPurchaseLink>> in Your app's info.plist before submission to the App Store;
- Go directly to Your web site without any redirect or intermediate links or landing page; and
- Comply with additional requirements provided in the Apple Materials.

In addition, Your App Store product page's metadata may not include information about purchasing on your website or a link to your website for purchasing.

3.6 Your use of any and all StoreKit External Purchase Link APIs shall follow the requirements set forth in this Addendum and the Apple Materials.

4. StoreKit External Purchase Link Program Commerce Requirements

You must meet the following External Purchase Link commerce requirements, as well as the requirements provided in the Apple Materials and the Program Requirements contained in **Section 3.3** of the Developer Agreement, as they may be modified by Apple from time to time.

4.1 Solely for the purpose of Transactions with End-Users in the Netherlands occurring under the terms of this Addendum, You act as the seller in Your own name and on Your own account and appoint Apple as Your service provider.

4.2 You certify that Your Alternative Billing System satisfies the following requirements:

- Meets Level 1 Payment Card Industry (PCI) compliance for handling credit and debit card data, or complies with the Payment Services Directive when not handling credit and debit card data;
- Makes a customer service process available for End-Users, including a process to dispute unauthorized transactions, manage subscriptions (if applicable), and request refunds; and
- Denominates all prices for the sale of digital goods and services to End-Users in the Netherlands in the euro currency.

4.3 Within fifteen (15) calendar days following the end of each fiscal week (as described in App Store Connect), You must provide Apple with Transaction Reports.

5. Commissions and Payments

5.1 Apple shall be entitled to a commission equal to the amount set forth in Schedule 2 to the Developer Agreement minus three percent (3%). Such commission applies to all prices payable by each End-User net of value-added tax charged by You.

5.2 Apple will issue an invoice to You for all commissions and any applicable taxes owed and will use commercially reasonable efforts to do so within fifteen (15) calendar days of receiving all the Transaction Reports within a fiscal month. Within forty-five (45) calendar days of the end of each fiscal month, You shall pay all commissions and any applicable taxes as directed by Apple in the Apple Materials and in the currency stated in the invoice, using a payment method approved by Apple for You (as may be modified by Apple from time to time).

5.3 Any payment dispute must be submitted before payment is due. If the parties determine that certain billing inaccuracies are attributable to Apple, Apple will issue a subsequent corrected invoice. If the Transaction Reports You submit show You issued a refund, Apple will reimburse You the commission paid to Apple on the transaction to which the refund relates, and will do so in the form of credit in future invoices.

5.4 Late payments may bear interest at the maximum rate permitted by law, as set forth in the invoice to You, as well as result in revocation of this entitlement and/or all APIs associated herewith. In addition, if You fail to pay Apple amounts owed under the terms of this Addendum, Apple reserves the right to offset those amounts against any other amounts that Apple owes to You under any other contract that You have with Apple, remove Your StoreKit External Purchase Link Dating App (NL) from the App Store, and/or remove You from the Apple Developer Program.

6. Taxes

6.1 You are responsible for value-added taxes, including (but not limited to) (a) determining if a Transaction is taxable; (b) charging and collecting the taxes at the applicable rate; (c) remitting the taxes to the appropriate taxing authority; and (d) providing any required documentation to the End-User or appropriate taxing authority. If Apple determines that it is obligated to collect or remit any

taxes in respect of a Transaction, such taxes (and any information required by Apple to determine such taxes) will be separately collected by Apple from You, and You will remit such taxes to Apple in accordance with the terms of this Addendum.

6.2 If Apple is obligated to collect or pay any taxes not covered in Section 6.3 (below) in respect of Your payment to Apple, such taxes will be separately invoiced to You, and You will pay such taxes to Apple.

6.3 To the extent withholding taxes are required under applicable law to be deducted from or in respect of any amount payable to Apple under the terms of this Addendum, You will (a) pay such additional amounts as may be necessary to ensure that Apple receives a net amount equal to the full amount which it would have received under the terms of this Addendum if no deduction or withholding had been made, (b) make such deductions, (c) deposit such taxes with the relevant governmental tax authority within the time as prescribed under applicable law, and (d) provide Apple with documentation, reasonably satisfactory to Apple, of such remittance.

6.4 You will timely provide Apple with any applicable tax documentation, certification, or information requested by Apple.

6.5 If you fail to comply with any obligation set forth in this Section 6, Apple reserves the right to remove Your StoreKit External Purchase Link Dating App (NL) from the App Store, and/or remove You from the Apple Developer Program.

7. Apple's Right to Audit

Notwithstanding any term to the contrary, You shall maintain and keep complete and accurate books and records concerning the amounts payable to Apple arising from Transactions, and refunds claimed, including taxes, for 18 months following the date of transmission of Transaction Reports to Apple. Apple may examine and audit Your books and records relating to any Transactions and refunds claimed during such 18 month period to verify the accuracy of payments to Apple. For the sake of clarity, Apple may not seek to examine and audit all Your financial data but only those data relevant to determining the accuracy of Apple's commission, payments to Apple and refunds claimed. To satisfy an audit request, You must, within thirty (30) days of the request allow an audit to take place. Apple may appoint an independent certified public accountant not then engaged in any audit of Apple or You to audit applicable books and records of You at a mutually agreed time and place during Your normal business hours.

8. Submission to Apple for App Store Distribution

8.1 By submitting Your StoreKit External Purchase Link Dating App (NL) to Apple for distribution on the App Store, You represent and warrant that Your StoreKit External Purchase Link Dating App (NL) complies with the requirements of this Addendum, as well as with the Developer Agreement, the Program Requirements in **Section 3.3** of the Developer Agreement, and the App Store Review Guidelines. You are solely responsible for developing a StoreKit External Purchase Link Dating App (NL) that complies with applicable laws and regulations.

8.2 For clarity, once Your StoreKit External Purchase Link Dating App (NL) has been selected for distribution via the App Store it will be considered a "**Licensed Application**" under the Developer Agreement.

8.3 Apple shall not be responsible for any costs, expenses, damages, losses (including without limitation lost business opportunities or lost profits) or other liabilities You may incur as a result of Your StoreKit External Purchase Link Dating App (NL) development or use of any Apple Materials, including without limitation the fact that Your StoreKit External Purchase Link Dating App (NL) may not be selected for distribution via the App Store.

8.4 If Your StoreKit External Purchase Link Dating App (NL) engages in misleading marketing practices, such as bait and switch, scams, or fraud, it will be removed from the App Store and You may be removed from the Apple Developer Program.

9. Your Acknowledgements

You acknowledge and agree that:

9.1 To the extent permitted by applicable law, Apple may at any time, and from time to time, with or without prior notice to You, modify, remove, or reissue the Apple Materials or the StoreKit External Purchase Link APIs, or any part thereof. You understand that any such modifications may require You to change or update Your StoreKit External Purchase Link Dating App (NL) at Your own cost and that features and functionality of such App may cease to function. Except as required by applicable law, Apple has no express or implied obligation to provide, or continue to provide, the Apple Materials or StoreKit External Purchase Link APIs, and may suspend or discontinue all or any portion of Your access to them at any time.

9.2 Apple makes no guarantees to You in relation to the availability, completeness, or accuracy of the Apple Materials, the StoreKit External Purchase Link APIs, or any data from the StoreKit External Purchase Link APIs, and Apple is not obligated to provide any maintenance, technical or other support for the StoreKit External Purchase Link APIs or the Apple Materials. You are fully responsible for testing Your StoreKit External Purchase Link Dating App (NL) and the use of the Entitlement Profile with each new release of the Apple operating system software.

9.3 In Your capacity as the legal entity responsible for any user data processed in connection with the use of Your StoreKit External Purchase Link Dating App (NL), You are solely responsible for complying with applicable data protection and privacy laws and regulations.

9.4 If You choose to stop using the StoreKit External Purchase Link Entitlement for Your StoreKit External Purchase Link Dating App (NL) or do not intend to renew the term of Your Developer Agreement, You must submit an update to Your StoreKit External Purchase Link Dating App (NL) removing Your Entitlement Profile and the use of the StoreKit External Purchase Link APIs prior to such cessation or the expiration of the term.

9.5 You will not be permitted to access or use the Apple Materials or StoreKit External Purchase Link APIs after expiration or termination of this Addendum or the Developer Agreement.

9.6 The Apple Materials, StoreKit External Purchase Link APIs, and any data from the StoreKit External Purchase Link APIs are provided by Apple to You on an “AS IS” and “AS AVAILABLE” basis. YOU EXPRESSLY ACKNOWLEDGE AND AGREE THAT ALL USE OF THE APPLE MATERIALS, STOREKIT EXTERNAL PURCHASE LINK APIS, AND ANY DATA FROM THE STOREKIT EXTERNAL PURCHASE LINK APIS IS AT YOUR SOLE RISK AND THAT THE ENTIRE RISK AS TO SATISFACTORY QUALITY, PERFORMANCE, ACCURACY, RELIABILITY, AND EFFORT IS WITH YOU. APPLE MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, REGARDING THE APPLE MATERIALS, STOREKIT EXTERNAL PURCHASE LINK APIS, OR ANY DATA FROM THE STOREKIT EXTERNAL PURCHASE LINK APIS, OR THEIR USE OR OPERATION ALONE OR IN COMBINATION WITH YOUR STOREKIT EXTERNAL PURCHASE LINK DATING APP (NL), PRODUCTS, SYSTEMS, OR SERVICES. APPLE DOES NOT WARRANT THAT THE APPLE MATERIALS, STOREKIT EXTERNAL PURCHASE LINK APIS, OR ANY DATA FROM THE STOREKIT EXTERNAL PURCHASE LINK APIS WILL MEET YOUR REQUIREMENTS, THAT THE OPERATION OF THE APPLE MATERIALS WILL BE UNINTERRUPTED OR ERROR-FREE, THAT DEFECTS IN THE APPLE MATERIALS WILL BE CORRECTED, OR THAT THE APPLE MATERIALS, STOREKIT EXTERNAL PURCHASE LINK APIS, OR ANY DATA FROM THE STOREKIT EXTERNAL PURCHASE LINK APIS WILL BE COMPATIBLE WITH ANY APPLE PRODUCTS, SOFTWARE OR SERVICES OR ANY THIRD-PARTY SOFTWARE, APPLICATIONS, OR SERVICES.

10. Confidentiality of this Addendum

You agree that the Apple Materials, any non-public information regarding Apple-branded products obtained through the use of the StoreKit External Purchase Link APIs, as well as the existence and terms and conditions of this Addendum shall be considered and treated as “Apple Confidential Information” in accordance with the terms of **Section 9 (Confidentiality)** of the Developer Agreement. You agree to use such Apple Confidential Information solely for the purpose of exercising Your rights and performing Your obligations under this Addendum and agree not to use

such Apple Confidential Information for any other purpose, for Your own or any third party's benefit, without Apple's prior written consent. You further agree not to disclose or disseminate Apple Confidential Information to anyone other than those of Your employees and contractors who have a need to know and who are bound by a written agreement that prohibits unauthorized use or disclosure of the Apple Confidential Information, or except as otherwise agreed or permitted in writing by Apple. You agree not to discuss, publicly write about, or post any reactions to or about the StoreKit External Purchase Link APIs, whether online, in print, in person, or on social media. For clarity, this section does not prohibit Your discussions with governmental regulatory bodies.

11. Changes to this Addendum; Termination of this Addendum

This Addendum shall apply to existing and future versions of the Developer Agreement into which You may enter. Apple may terminate in the event of a material breach by You of any of Your obligations under this Addendum, provided that: (i) Apple provides notice to You thereof, and (ii) such breach is not cured within thirty (30) days following the date such notice is deemed given. In addition, either party may terminate this Addendum upon thirty (30) days' prior written notice to the other party. Termination of this Addendum will not constitute termination of the Developer Agreement; provided, however, that termination of the Developer Agreement will constitute termination of this Addendum. The following provisions will survive the termination of this Addendum: Section 1, the restrictions of Section 2 and 3, and Sections 4 through 13. In the event of a conflict between this Addendum and the Developer Agreement, this Addendum will control with respect to such conflict.

12. Additional Liability Disclaimer

TO THE EXTENT NOT OTHERWISE PROHIBITED BY APPLICABLE LAW, IN NO EVENT SHALL APPLE BE LIABLE FOR ANY DAMAGES OR LOSSES INCLUDING BUT NOT LIMITED TO, ANY LOSS OF PROFIT (WHETHER INCURRED DIRECTLY OR INDIRECTLY), ANY LOSS OF GOODWILL OR BUSINESS REPUTATION, ANY LOSS OF DATA SUFFERED, OR OTHER INTANGIBLE LOSS, ARISING OUT OF OR RELATED TO THIS ADDENDUM, THE USE OF THE APPLE MATERIALS, THE STOREKIT EXTERNAL PURCHASE LINK APIS, AND ANY DATA FROM THE STOREKIT EXTERNAL PURCHASE LINK APIS, ANY CHANGE, MODIFICATION, SUSPENSION, TERMINATION, OR DISCONTINUATION OF THE APPLE MATERIALS OR THE STOREKIT EXTERNAL PURCHASE LINK APIS, THE FAILURE OF OR ANY ERRORS OR INACCURACIES IN THE APPLE MATERIALS, THE STOREKIT EXTERNAL PURCHASE LINK APIS, OR ANY DATA FROM THE STOREKIT EXTERNAL PURCHASE LINK APIS.

13. Additional Indemnification Obligations

In addition to the indemnification obligations contained in **Section 10 (Indemnification)** of the Developer Agreement and to the extent permitted by applicable law, You agree to indemnify and hold harmless, and upon Apple's request, defend, any Apple Indemnified Party from any and all Losses incurred by an Apple Indemnified Party arising from or related to the Dating App or Your use of the Apple Materials, StoreKit External Purchase Link APIs, or any data obtained from the StoreKit External Purchase Link APIs, including but not limited to any claims for improper use of the StoreKit External Purchase Link APIs, any data obtained therefrom, or any End-User claims arising out of or related to the use of Your StoreKit External Purchase Link Dating App (NL). You will also, at Your own expense and at the request of Apple, indemnify Apple and be liable to pay (or reimburse Apple for) any taxes, interest, penalties, or fines arising out of any mis-declaration by You with respect to taxes.

LYL 121
06/10/2022

EXHIBIT 16

PLEASE READ THE FOLLOWING EXTERNAL LINK ACCOUNT ENTITLEMENT ADDENDUM TO THE APPLE DEVELOPER PROGRAM LICENSE AGREEMENT CAREFULLY BEFORE DOWNLOADING OR USING THE APPLE SOFTWARE OR APPLE SERVICES. THESE TERMS AND CONDITIONS CONSTITUTE A LEGAL AGREEMENT BETWEEN YOU AND APPLE AND ARE IN ADDITION TO THE TERMS OF THE APPLE DEVELOPER PROGRAM LICENSE AGREEMENT. IF YOU DO NOT OR CANNOT ACCEPT THIS EXTERNAL LINK ENTITLEMENT ADDENDUM, YOU ARE NOT PERMITTED TO USE THE APPLE SOFTWARE OR SERVICES. IF YOU ARE ACCESSING THIS ADDENDUM ELECTRONICALLY, SIGNIFY YOUR AGREEMENT TO BE BOUND BY THE TERMS OF THIS ADDENDUM BY CLICKING THE “AGREE” BUTTON. IF YOU DO NOT AGREE TO THE TERMS OF THIS ADDENDUM, CLICK “DISAGREE”.

External Link Account Entitlement Addendum for Reader Apps

(to the Apple Developer Program License Agreement)

This External Link Account Entitlement Addendum for Reader Apps (“**Addendum**”) is in addition to the terms of the Apple Developer Program License Agreement (“**Developer Agreement**”). To enter into this Addendum, You must be a member in good standing of the Apple Developer Program and You must have entered into the current terms of the Developer Agreement. Defined terms not defined herein shall have the same meaning as set forth in the Developer Agreement.

1. Definitions

“**Apple Materials**” means the Documentation, Entitlement Profile, and other materials provided by Apple to You, and which are incorporated by reference into the requirements of this Addendum.

“**Entitlement Profile**” means the entitlement profile that may be made available to You by Apple under this Addendum that permits Your Application to use links from Your Application to an external website for account creation or management in accordance with the requirements of this Addendum.

“**External Link Account Reader App**” means Your Application that has been granted an Entitlement Profile.

“**External Link Account APIs**” means the restricted Application Programming Interfaces (“APIs”) contained in the Apple Software or provided as web APIs that enable approved developers to use Apple’s External Link Account APIs.

2. Entitlement Profile, Licenses and Restrictions

2.1 You understand that You will need to request an Entitlement Profile on the Apple Developer Program web portal prior to use of links from Your Application to an external website for account creation and management. To obtain an Entitlement Profile, Your Application must:

- Be available on iOS, iPadOS, or tvOS;
- Be a reader app, as set forth in App Store Review Guidelines Section 3, meaning
 - Your Application’s primary functionality is to provide access to digital content – specifically, magazines, newspapers, books, audio, music, or video; and
 - Your Application provides End-Users access through an account to such content previously purchased from outside your Application, such as on Your website;
- Not offer in-app purchases on iOS, iPadOS, or tvOS;
- Link to a website that You own or have responsibility for; and
- Meet all additional requirements provided in the Apple Materials.

2.2 The Entitlement Profile is compatible and may only be used with devices running iOS,

iPadOS, or tvOS 16.4 or later.

2.3 You may use the Entitlement Profile only with the External Link Account Reader App for which You requested the Entitlement Profile and for which Apple approved the Entitlement Profile. You agree to submit true, accurate, and complete information to Apple regarding Your requested use of the External Link Account Entitlement and APIs, and to update Apple according to instructions provided in the Apple Materials if any of Your information changes. Apple will review Your request and reserves the right to not provide You with the Entitlement Profile in its sole discretion, in which case You will not be able to use the External Link Account Entitlement or External Link Account APIs, and to revoke such Entitlement Profile, at any time in its sole discretion. Apple will not be liable to You for declining Your request for the External Link Account Entitlement or to access the External Link Account APIs even if You have agreed to this Addendum.

2.4 You acknowledge and agree that You will not use links from Your Application to an external website for account creation and management unless You have received an Entitlement Profile from Apple. If You receive an Entitlement Profile, then subject to the terms and conditions of this Addendum and the Developer Agreement, Apple hereby grants You during the Term a limited, non-exclusive, personal, revocable, non-sublicensable and non-transferable license to:

(a) distribute the Entitlement Profile to Your Authorized Developers for testing and developing Your External Link Account Reader App; and

(b) use the Entitlement Profile with Your External Link Account Reader App solely on Authorized Test Devices, Registered Devices, and for submission to the App Store pursuant to **Section 4 (Application Submission and Selection)** of the Developer Agreement.

2.5 You agree to use, only through the use of the Entitlement Profile, links from Your External Link Account Reader App to an external website for account creation and management only as expressly permitted in this Addendum and in the Apple Materials. You agree not to use or attempt to use the Entitlement Profile in or with any of Your Applications not granted the Entitlement Profile or with any other developers' applications. For clarity, You may not use the Entitlement Profile with applications developed or distributed under any other Apple Developer agreements (e.g., the Apple Developer Enterprise Program License Agreement). You are permitted to use the Entitlement Profile only in connection with Your External Link Account Reader App developed or distributed under this Addendum and with Apple-branded products.

2.6 You further agree to keep updated the information You provided to Apple to obtain an Entitlement Profile, and You acknowledge that changes may affect Your continued eligibility for an Entitlement Profile.

2.7 While in no way limiting Apple's other rights under the Developer Agreement, if Apple has reason to believe You or Your External Link Account Reader App have failed to comply with the requirements of this Addendum or the Developer Agreement, Apple reserves the right to revoke to Your access to any or all of the External Link Account APIs immediately upon notice to You; require You to remove Your Entitlement Profile from Your External Link Account Reader App and resubmit it; hide or remove Your External Link Account Reader App from the App Store; and/or to remove You from the Apple Developer Program.

3. External Link Account Program Requirements

You must meet the following External Link Account technical requirements, as well as the requirements provided in the Apple Materials and the Program Requirements contained in **Section 3.3** of the Developer Agreement, as they may be modified by Apple from time to time.

3.1 Prior to each instance of linking from Your External Link Account Reader App to an external website for account creation and management, You must:

- Call the canMakePayments API and determine that the End-User may authorize payments; and
- Surface to the End-User a disclosure that comports with the requirements provided in the Apple Materials. You must attach to Your app submission in App Store Connect

screenshots showing where Your External Link Account Reader App provides this disclosure.

3.2 You must provide the disclosure referred to in Section 3.1 as follows:

- On iOS 16 or iPadOS 16 or later, use the External Link Account API. For users on earlier versions of iOS or iPadOS, You must provide the disclosure, and must attach to Your app submission in App Store Connect screenshots showing where Your External Link Account Reader App provides this disclosure.
- On tvOS 16.4 or later, use the External Link Account API. The Entitlement Profile is not compatible with and may not be used on earlier versions of tvOS.

3.3 Any link You provide in Your External Link Account Reader App under this Addendum must:

- Link to a website You own or have responsibility for;
- Open a new window in the default browser on the device, and may not open a web view;
- Not pass additional parameters in the URL in order to protect the End-User (for example, their privacy);
- Be submitted with Your External Link Account Reader App to the App Store, and shall be resubmitted if the URL changes;
- Not include or be used with language including the price of items available on the website You own or have responsibility for; acceptable language includes “go to example.com to create or manage your account”;
- Be formatted like a standard HTML link (i.e. blue underlined text) and contain the domain name of the web site;
- Be displayed only once per app page, and must display the same message in each instance;
- Be statically-defined in the <<external-link.account>> in Your app's info.plist before submission to the App Store;
- Go directly to Your web site without any redirect or intermediate links or landing page; and
- Comply with additional requirements provided in the Apple Materials.

In addition, Your App Store product page's metadata may not include information about purchasing on your website or a link to your website for purchasing.

3.4 If You choose, You may provide a unique link to a website You own or have responsibility for under this Addendum, for any App Store territory in which Your External Link Account Reader App is available.

3.5 Your use of any and all External Link Account APIs shall follow the requirements set forth in this Addendum and the Apple Materials.

4. Submission to Apple for App Store Distribution

4.1 By submitting Your External Link Account Reader App to Apple for distribution on the App Store, You represent and warrant that Your External Link Account Reader App complies with the requirements of this Addendum, as well as with the Developer Agreement, the Program Requirements in **Section 3.3** of the Developer Agreement, and the App Store Review Guidelines. You are solely responsible for developing a External Link Account Reader App that complies with applicable laws and regulations.

4.2 Nothing herein shall imply that Apple will accept Your External Link Account Reader App for distribution on the App Store, and You acknowledge and agree that Apple may, in its sole discretion, reject, or cease distributing Your External Link Account Reader App for any reason, even if Your

External Link Account Reader App is in compliance with the terms and conditions of this Addendum and the Developer Agreement. For clarity, once Your External Link Account Reader App has been selected for distribution via the App Store it will be considered a **"Licensed Application"** under the Developer Agreement.

4.3 Apple shall not be responsible for any costs, expenses, damages, losses (including without limitation lost business opportunities or lost profits) or other liabilities You may incur as a result of Your External Link Account Reader App development or use of any Apple Materials, including without limitation the fact that Your External Link Account Reader App may not be selected for distribution via the App Store.

4.4 If Your External Link Account Reader App engages in misleading marketing practices, such as bait and switch, scams, or fraud, it will be removed from the App Store and You may be removed from the Apple Developer Program.

5. Your Acknowledgements

You acknowledge and agree that:

5.1 To the extent permitted by applicable law, Apple may at any time, and from time to time, with or without prior notice to You, modify, remove, or reissue the Apple Materials or the External Link Account APIs, or any part thereof. You understand that any such modifications may require You to change or update Your External Link Account Reader App at Your own cost and that features and functionality of such App may cease to function. Except as required by applicable law, Apple has no express or implied obligation to provide, or continue to provide, the Apple Materials or External Link Account APIs, and may suspend or discontinue all or any portion of Your access to them at any time.

5.2 Apple makes no guarantees to You in relation to the availability, completeness, or accuracy of the Apple Materials, the External Link Account APIs, or any data from the External Link Account APIs, and Apple is not obligated to provide any maintenance, technical or other support for the External Link Account APIs or the Apple Materials. You are fully responsible for testing Your External Link Account Reader App and the use of the Entitlement Profile with each new release of the Apple operating system software.

5.3 In Your capacity as the legal entity responsible for any user data processed in connection with the use of Your External Link Account Reader App, You are solely responsible for complying with applicable data protection and privacy laws and regulations.

5.4 If You choose to stop using the External Link Account Entitlement for Your External Link Account Reader App or do not intend to renew the term of Your Developer Agreement, You must submit an update to Your External Link Account Reader App removing Your Entitlement Profile and the use of the External Link Account APIs prior to such cessation or the expiration of the term.

5.5 You will not be permitted to access or use the Apple Materials or External Link Account APIs after expiration or termination of this Addendum or the Developer Agreement.

5.6 The Apple Materials, External Link Account APIs, and any data from the External Link Account APIs are provided by Apple to You on an "AS IS" and "AS AVAILABLE" basis. YOU EXPRESSLY ACKNOWLEDGE AND AGREE THAT ALL USE OF THE APPLE MATERIALS, EXTERNAL LINK ACCOUNT APIS, AND ANY DATA FROM THE EXTERNAL LINK ACCOUNT APIS IS AT YOUR SOLE RISK AND THAT THE ENTIRE RISK AS TO SATISFACTORY QUALITY, PERFORMANCE, ACCURACY, RELIABILITY, AND EFFORT IS WITH YOU. APPLE MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, REGARDING THE APPLE MATERIALS, EXTERNAL LINK ACCOUNT APIS, OR ANY DATA FROM THE EXTERNAL LINK ACCOUNT APIS, OR THEIR USE OR OPERATION ALONE OR IN COMBINATION WITH YOUR EXTERNAL LINK ACCOUNT READER APP, PRODUCTS, SYSTEMS, OR SERVICES. APPLE DOES NOT WARRANT THAT THE APPLE MATERIALS, EXTERNAL LINK ACCOUNT APIS, OR ANY DATA FROM THE EXTERNAL LINK ACCOUNT APIS WILL MEET YOUR REQUIREMENTS, THAT THE OPERATION OF THE

APPLE MATERIALS WILL BE UNINTERRUPTED OR ERROR-FREE, THAT DEFECTS IN THE APPLE MATERIALS WILL BE CORRECTED, OR THAT THE APPLE MATERIALS, EXTERNAL LINK ACCOUNT APIS, OR ANY DATA FROM THE EXTERNAL LINK ACCOUNT APIS WILL BE COMPATIBLE WITH ANY APPLE PRODUCTS, SOFTWARE OR SERVICES OR ANY THIRD-PARTY SOFTWARE, APPLICATIONS, OR SERVICES.

6. Confidentiality of this Addendum

You agree that the Apple Materials, any non-public information regarding Apple-branded products obtained through the use of the External Link Account APIs, as well as the existence and terms and conditions of this Addendum shall be considered and treated as “Apple Confidential Information” in accordance with the terms of **Section 9 (Confidentiality)** of the Developer Agreement. You agree to use such Apple Confidential Information solely for the purpose of exercising Your rights and performing Your obligations under this Addendum and agree not to use such Apple Confidential Information for any other purpose, for Your own or any third party’s benefit, without Apple’s prior written consent. You further agree not to disclose or disseminate Apple Confidential Information to anyone other than those of Your employees and contractors who have a need to know and who are bound by a written agreement that prohibits unauthorized use or disclosure of the Apple Confidential Information, or except as otherwise agreed or permitted in writing by Apple. You agree not to discuss, publicly write about, or post any reactions to or about the External Link Account APIs, whether online, in print, in person, or on social media.

7. Changes to this Addendum; Termination of this Addendum

This Addendum shall apply to existing and future versions of the Developer Agreement into which You may enter. Apple may terminate in the event of a material breach by You of any of Your obligations under this Addendum, provided that: (i) Apple provides notice to You thereof, and (ii) such breach is not cured within thirty (30) days following the date such notice is deemed given. In addition, either party may terminate this Addendum upon thirty (30) days’ prior written notice to the other party. Termination of this Addendum will not constitute termination of the Developer Agreement; provided, however, that termination of the Developer Agreement will constitute termination of this Addendum. The following provisions will survive the termination of this Addendum: Section 1, the restrictions of Section 2 and 3, and Sections 4 through 9. In the event of a conflict between this Addendum and the Developer Agreement, this Addendum will control with respect to such conflict.

8. Additional Liability Disclaimer

TO THE EXTENT NOT OTHERWISE PROHIBITED BY APPLICABLE LAW, IN NO EVENT SHALL APPLE BE LIABLE FOR ANY DAMAGES OR LOSSES INCLUDING BUT NOT LIMITED TO, ANY LOSS OF PROFIT (WHETHER INCURRED DIRECTLY OR INDIRECTLY), ANY LOSS OF GOODWILL OR BUSINESS REPUTATION, ANY LOSS OF DATA SUFFERED, OR OTHER INTANGIBLE LOSS, ARISING OUT OF OR RELATED TO THIS ADDENDUM, THE USE OF THE APPLE MATERIALS, THE EXTERNAL LINK ACCOUNT APIS, AND ANY DATA FROM THE EXTERNAL LINK ACCOUNT APIS, ANY CHANGE, MODIFICATION, SUSPENSION, TERMINATION, OR DISCONTINUATION OF THE APPLE MATERIALS OR THE EXTERNAL LINK ACCOUNT APIS, THE FAILURE OF OR ANY ERRORS OR INACCURACIES IN THE APPLE MATERIALS, THE EXTERNAL LINK ACCOUNT APIS, OR ANY DATA FROM THE EXTERNAL LINK ACCOUNT APIS.

9. Additional Indemnification Obligations

In addition to the indemnification obligations contained in **Section 10 (Indemnification)** of the Developer Agreement and to the extent permitted by applicable law, You agree to indemnify and hold harmless, and upon Apple’s request, defend, any Apple Indemnified Party from any and all Losses incurred by an Apple Indemnified Party arising from or related to the App or Your use of the Apple Materials, External Link Account APIs, or any data obtained from the External Link Account APIs, including but not limited to any claims for improper use of the External Link Account APIs, any data obtained therefrom, or any End-User claims arising out of or related to the use of Your External Link Account Reader App.

LYL 128
02/14/2023

EXHIBIT 17

**UNITED STATES OF AMERICA
BEFORE THE FEDERAL TRADE COMMISSION**

In the Matter of

EPIC GAMES, INC., a corporation.

FILE NO. 192 3203

**AGREEMENT CONTAINING
CONSENT ORDER**

The Federal Trade Commission (“Commission”) has conducted an investigation of certain acts and practices of Epic Games, Inc. (“Proposed Respondent”). The Commission’s Bureau of Consumer Protection (“BCP”) has prepared a draft of an administrative Complaint (“draft Complaint”). BCP and Proposed Respondent, through its duly authorized officers, enter into this Agreement Containing Consent Order (“Consent Agreement”) to resolve the allegations in the attached draft Complaint through a proposed Decision and Order to present to the Commission, which is also attached and made a part of this Consent Agreement.

IT IS HEREBY AGREED by and between Proposed Respondent and BCP, that:

1. The Proposed Respondent is Epic Games, Inc., a Maryland corporation with its principal office or place of business at 620 Crossroads Blvd., Cary, North Carolina 27518.
2. Proposed Respondent neither admits nor denies any of the allegations in the Complaint, except as specifically stated in the Decision and Order. Only for purposes of this action, Proposed Respondent admits the facts necessary to establish jurisdiction.
3. Proposed Respondent waives:
 - a. Any further procedural steps;
 - b. The requirement that the Commission’s Decision contain a statement of findings of fact and conclusions of law; and
 - c. All rights to seek judicial review or otherwise to challenge or contest the validity of the Decision and Order issued pursuant to this Consent Agreement.
4. This Consent Agreement will not become part of the public record of the proceeding unless and until it is accepted by the Commission. If the Commission accepts this Consent Agreement, it, together with the draft Complaint, will be placed on the public record for 30 days and information about them publicly released. Acceptance does not constitute final approval, but it serves as the basis for further actions leading to final disposition of the matter. Thereafter, the Commission may either withdraw its acceptance of this Consent Agreement and so notify

Proposed Respondent, in which event the Commission will take such action as it may consider appropriate, or issue and serve its Complaint (in such form as the circumstances may require) and decision in disposition of the proceeding, which may include an Order. *See* Section 2.34 of the Commission's Rules, 16 C.F.R. § 2.34 ("Rule 2.34").

5. If this agreement is accepted by the Commission, and if such acceptance is not subsequently withdrawn by the Commission pursuant to Rule 2.34, the Commission may, without further notice to Proposed Respondent: (1) issue its Complaint corresponding in form and substance with the attached draft Complaint and its Decision and Order; and (2) make information about them public. Proposed Respondent agrees that service of the Order may be effected by its publication on the Commission's website (ftc.gov), at which time the Order will become final. *See* Rule 2.32(d). Proposed Respondent waives any rights it may have to any other manner of service. *See* Rule 4.4.

6. When final, the Decision and Order will have the same force and effect and may be altered, modified, or set aside in the same manner and within the same time provided by statute for other Commission orders.

7. The Complaint may be used in construing the terms of the Decision and Order. No agreement, understanding, representation, or interpretation not contained in the Decision and Order or in this Consent Agreement may be used to vary or contradict the terms of the Decision and Order.

8. Proposed Respondent agrees to comply with the terms of the proposed Decision and Order from the date that Proposed Respondent signs this Consent Agreement. Proposed Respondent understands that it may be liable for civil penalties and other relief for each violation of the Decision and Order after it becomes final.

EPIC GAMES, INC.

By: _____

Name:

Title:

Epic Games, Inc.

Date: _____

FEDERAL TRADE COMMISSION

By: _____

James Doty

Sam Jacobson

Naomi Takagi

Attorneys, Bureau of Consumer Protection

APPROVED:

Malini Mithal

Associate Director

Division of Financial Practices

Samuel A.A. Levine

Director

Bureau of Consumer Protection

Date: _____

Christopher Olsen

Libby Weingarten

Wilson Sonsini Rosati & Goodrich

Attorneys for Proposed Respondent

192-3203

**UNITED STATES OF AMERICA
BEFORE THE FEDERAL TRADE COMMISSION**

COMMISSIONERS: **Lina M. Khan, Chair
Rebecca Kelly Slaughter
Christine S. Wilson
Alvaro M. Bedoya**

In the Matter of

EPIC GAMES, INC., a corporation.

DECISION AND ORDER

DOCKET NO. C-

DECISION

The Federal Trade Commission (“Commission”) initiated an investigation of certain acts and practices of the Respondent named in the caption. The Commission’s Bureau of Consumer Protection (“BCP”) prepared and furnished to Respondent a draft Complaint. BCP proposed to present the draft Complaint to the Commission for its consideration. If issued by the Commission, the draft Complaint would charge the Respondent with violations of the Federal Trade Commission Act.

Respondent and BCP thereafter executed an Agreement Containing Consent Order (“Consent Agreement”). The Consent Agreement includes: 1) statements by Respondent that it neither admits nor denies any of the allegations in the Complaint, except as specifically stated in this Decision and Order, and that only for purposes of this action, it admits the facts necessary to establish jurisdiction; and 2) waivers and other provisions as required by the Commission’s Rules.

The Commission considered the matter and determined that it had reason to believe that Respondent has violated the Federal Trade Commission Act, and that a Complaint should issue stating its charges in that respect. The Commission accepted the executed Consent Agreement and placed it on the public record for a period of 30 days for the receipt and consideration of public comments. The Commission duly considered any comments received from interested persons pursuant to Section 2.34 of its Rules, 16 C.F.R. § 2.34. Now, in further conformity with the procedure prescribed in Rule 2.34, the Commission issues its Complaint, makes the following Findings, and issues the following Order:

Findings

1. The Respondent is Epic Games, Inc., a Maryland corporation with its principal office or place of business at 620 Crossroads Blvd., Cary, North Carolina 27518.
2. The Commission has jurisdiction over the subject matter of this proceeding and over the Respondent, and the proceeding is in the public interest.

ORDER

Definitions

For purposes of this Order, the following definitions apply:

- A. “Account Holder” means an individual or entity that is responsible for paying for Charges associated with an account to which Respondent may bill Charges.
- B. “Application” means any software application that can be installed on a computing device, including a personal computer, mobile device, or video game console.
- C. “Application Activity” or “Application Activities” means any user conduct within an Application, including the acquisition of currency, goods, services, or other Applications.
- D. “Charge” means a charge associated with an Application Activity billed by Respondent.
- E. “Clear and conspicuous” means that a required disclosure is difficult to miss (i.e., easily noticeable) and easily understandable by ordinary consumers, including in all of the following ways:
 1. In any communication that is solely visual or solely audible, the disclosure must be made through the same means through which the communication is presented. In any communication made through both visual and audible means, such as a television advertisement, the disclosure must be presented simultaneously in both the visual and audible portions of the communication even if the representation requiring the disclosure (“triggering representation”) is made through only one means.
 2. A visual disclosure, by its size, contrast, location, the length of time it appears, and other characteristics, must stand out from any accompanying text or other visual elements so that it is easily noticed, read, and understood.
 3. An audible disclosure, including by telephone or streaming video, must be delivered in a volume, speed, and cadence sufficient for ordinary consumers to easily hear and understand it.

4. In any communication using an interactive electronic medium, such as the Internet or software, the disclosure must be unavoidable.
 5. The disclosure must use diction and syntax understandable to ordinary consumers and must appear in each language in which the triggering representation appears.
 6. The disclosure must comply with these requirements in each medium through which it is received, including all electronic devices and face-to-face communications.
 7. The disclosure must not be contradicted or mitigated by, or inconsistent with, anything else in the communication.
 8. When the representation or sales practice targets a specific audience, such as children, the elderly, or the terminally ill, “ordinary consumers” includes reasonable members of that group.
- F. “Express, Informed Consent” means, upon being presented with options to provide or withhold consent, an affirmative act communicating informed authorization of a Charge, made prior to and proximate to an Application Activity for which there is a Charge and to Respondent’s Clear and Conspicuous disclosure of all material information related to the billing, including:
1. If consent is sought for a specific Charge: (a) the Application Activity associated with the Charge; (b) the specific amount of the Charge; and (c) the account that will be billed for the Charge; or
 2. If consent is sought for potential future Charges: (a) the scope of the Charges for which consent is sought, including the duration and Applications to which consent applies; (b) the account that will be billed for the Charge; and (c) method(s) through which the Account Holder can revoke or otherwise modify the scope of consent on the device, including an immediate means to access the method(s).

Provided that the solicitation of the “affirmative act” and the disclosure of the information in F.1 and F.2 must be reasonably calculated to ensure that the person providing Express, Informed Consent is the Account Holder.

Provided also that if Respondent obtains Express, Informed Consent to potential future Charges as set forth in definition F.2 above, it must do so a minimum of once per device.

Provided also that Express, Informed Consent may not be obtained through a user interface that has the effect of subverting or impairing user autonomy, decision-making, or choice.

Provisions

I.

IT IS ORDERED that Respondent and its officers, agents, and employees, and all other persons in active concert or participation with any of them, who receive actual notice of this Order, whether acting directly or indirectly, are restrained and enjoined for the term of this Order from billing an Account Holder for any Charge without having obtained Express, Informed Consent for the Charge. If Respondent seeks and obtains Express, Informed Consent to billing potential future Charges (other than future royalty payments owed by the user based on revenue the user derives from use of an Application), Respondent must provide the Account Holder with a simple mechanism to revoke consent at any time. Such mechanism must not be difficult, costly, confusing, or time consuming, and must be at least as simple as the mechanism the consumer used to initiate the Charge(s).

II.

IT IS FURTHER ORDERED that Respondent and its officers, agents, employees, and attorneys, and all other persons in active concert or participation with any of them, who receive actual notice of this Order, whether acting directly or indirectly, in connection with the advertising, marketing, promoting, offering for sale, or selling of any goods or services, are permanently restrained and enjoined from denying, temporarily or permanently, a consumer's access to or use of his or her account, including any paid-for goods or services, for reasons that include the consumer's dispute of a Charge.

III. Monetary Relief

IT IS FURTHER ORDERED that:

- A. Respondent must pay to the Commission \$245,000,000, which its undersigned counsel holds in escrow for no purpose other than payment to the Commission.
- B. Such payment must be made within 8 days of the effective date of this Order by electronic fund transfer in accordance with instructions provided by a representative of the Commission.

IV. Additional Monetary Provisions

IT IS FURTHER ORDERED that:

- A. Respondent relinquishes dominion and all legal and equitable right, title, and interest in all assets transferred pursuant to this Order and may not seek the return of any assets.
- B. The facts alleged in the Complaint will be taken as true, without further proof, in any subsequent civil litigation by or on behalf of the Commission to enforce its rights to any

payment pursuant to this Order, such as a nondischargeability complaint in any bankruptcy case.

- C. The facts alleged in the Complaint establish all elements necessary to sustain an action by or on behalf of the Commission pursuant to Section 523(a)(2)(A) of the Bankruptcy Code, 11 U.S.C. § 523(a)(2)(A), and this Order will have collateral estoppel effect for such purposes.
- D. All money paid to the Commission pursuant to this Order may be deposited into a fund administered by the Commission or its designee to be used for relief, including consumer redress and any attendant expenses for the administration of any redress fund. If a representative of the Commission decides that direct redress to consumers is wholly or partially impracticable or money remains after redress is completed, the Commission may apply any remaining money for such other relief (including consumer information remedies) as it determines to be reasonably related to Respondent's practices alleged in the Complaint. Any money not used is to be deposited to the U.S. Treasury. Respondent has no right to challenge any activities pursuant to this Provision.
- E. In the event of default on any obligation to make payment under this Order, interest, computed as if pursuant to 28 U.S.C. § 1961(a), shall accrue from the date of default to the date of payment. In the event such default continues for 10 days beyond the date that payment is due, the entire amount will immediately become due and payable.
- F. Each day of nonpayment is a violation through continuing failure to obey or neglect to obey a final order of the Commission and thus will be deemed a separate offense and violation for which a civil penalty shall accrue.
- G. Respondent acknowledges that its Taxpayer Identification Number (Social Security or Employer Identification Number), which Respondent has previously submitted to the Commission, may be used for collecting and reporting on any delinquent amount arising out of this Order, in accordance with 31 U.S.C. § 7701.

V. Customer Information

IT IS FURTHER ORDERED that Respondent must directly or indirectly provide sufficient customer information to enable the Commission to efficiently administer consumer redress to Account Holders to whom Respondent billed a Charge without Express, Informed Consent, and Account Holders whom Respondent denied access to paid-for goods or services for disputing any Charge. If a representative of the Commission requests in writing any information related to redress, Respondent must provide it, in the form prescribed by the Commission representative, within 14 days.

VI. Acknowledgments of the Order

IT IS FURTHER ORDERED that Respondent obtains acknowledgments of receipt of this Order:

- A. Respondent, within 10 days after the effective date of this Order, must submit to the Commission an acknowledgment of receipt of this Order sworn under penalty of perjury.
- B. For 20 years after the issuance date of this Order, Respondent must deliver a copy of this Order to: (1) all principals, officers, directors, and LLC managers and members; (2) all employees having managerial responsibilities for conduct related to the subject matter of the Order and all agents and representatives who participate in conduct related to the subject matter of the Order; and (3) any business entity resulting from any change in structure as set forth in the Provision titled Compliance Report and Notices. Delivery must occur within 10 days after the effective date of this Order for current personnel. For all others, delivery must occur within 10 days of when they assume their responsibilities.
- C. From each individual or entity to which Respondent delivered a copy of this Order, Respondent must obtain, within 30 days, a signed and dated acknowledgment of receipt of this Order.

VII. Compliance Report and Notices

IT IS FURTHER ORDERED that Respondent make timely submissions to the Commission:

- A. One year after the issuance date of this Order, Respondent must submit a compliance report, sworn under penalty of perjury, in which:
 - 1. Respondent must: (a) identify the primary physical, postal, and email address and telephone number, as designated points of contact, which representatives of the Commission, may use to communicate with Respondent; (b) identify all of Respondent's businesses by all of their names, telephone numbers, and physical, postal, email, and Internet addresses; (c) describe the activities of each business, including the goods and services offered, purchase flows, billing practices; (d) describe in detail whether and how Respondent is in compliance with each Provision of this Order, including a discussion of all material changes Respondent made to comply with the Order; and (e) provide a copy of each Acknowledgment of the Order obtained pursuant to this Order, unless previously submitted to the Commission.
- B. For 10 years after the issuance date of this Order, Respondent must submit a compliance notice, sworn under penalty of perjury, within 14 days of any change in the following:
 - 1. Respondent must submit notice of any change in: (a) any designated point of contact; or (b) the structure of Respondent or any entity that Respondent has any ownership interest in or controls directly or indirectly that may affect compliance obligations arising under this Order, including: creation, merger, sale, or dissolution of the entity or any subsidiary, parent, or affiliate that engages in any acts or practices subject to this Order.

- C. Respondent must submit notice of the filing of any bankruptcy petition, insolvency proceeding, or similar proceeding by or against Respondent within 14 days of its filing.
- D. Any submission to the Commission required by this Order to be sworn under penalty of perjury must be true and accurate and comply with 28 U.S.C. § 1746, such as by concluding: “I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct. Executed on: _____” and supplying the date, signatory’s full name, title (if applicable), and signature.
- E. Unless otherwise directed by a Commission representative in writing, all submissions to the Commission pursuant to this Order must be emailed to DEbrief@ftc.gov or sent by overnight courier (not the U.S. Postal Service) to: Associate Director for Enforcement, Bureau of Consumer Protection, Federal Trade Commission, 600 Pennsylvania Avenue NW, Washington, DC 20580. The subject line must begin: In re Epic Games, Inc., [C or D docket number].

VIII. Recordkeeping

IT IS FURTHER ORDERED that Respondent must create certain records for 10 years and retain each such record for 5 years. Specifically, Respondent, for any business that Respondent is a majority owner or controls directly or indirectly, must create and retain the following records:

- A. accounting records showing the revenues from all goods or services sold, the costs incurred in generating those revenues, and resulting net profit or loss;
- B. personnel records showing, for each person providing services in relation to any aspect of the Order, whether as an employee or otherwise, that person’s: name; addresses; telephone numbers; job title or position; dates of service; and (if applicable) the reason for termination;
- C. copies or records of all consumer complaints and refund requests concerning the subject matter of the Order, whether received directly or through any domestic government regulatory authority;
- D. records of any market, behavioral, or psychological research, or user or customer testing performed by or at the direction of Respondent, including any A/B or multivariate testing, copy testing, surveys, focus groups, customer interviews, clickstream analysis, eye or mouse tracking studies, heat maps, or session replays or recordings;
- E. for 5 years from the date received, copies of all subpoenas and other communications with domestic law enforcement, if such communication relate to Respondent’s compliance with this Order;

- F. for 5 years from the date created or received, all custodial records for individuals with managerial responsibility for digital purchasing and user interface; and
- G. all records necessary to demonstrate full compliance with each provision of this Order, including all submissions to the Commission.

IX. Compliance Monitoring

IT IS FURTHER ORDERED that, for the purpose of monitoring Respondent's compliance with this Order:

- A. Within 10 days of receipt of a written request from a representative of the Commission, Respondent must: submit additional compliance reports or other requested information, which must be sworn under penalty of perjury, and produce records for inspection and copying.
- B. For matters concerning this Order, representatives of the Commission are authorized to communicate directly with Respondent. Respondent must permit representatives of the Commission to interview anyone affiliated with Respondent who has agreed to such an interview. The interviewee may have counsel present.
- C. The Commission may use all other lawful means, including posing through its representatives as consumers, suppliers, or other individuals or entities, to Respondent or any individual or entity affiliated with Respondent, without the necessity of identification or prior notice. Nothing in this Order limits the Commission's lawful use of compulsory process, pursuant to Sections 9 and 20 of the FTC Act, 15 U.S.C. §§ 49, 57b-1.

X. Order Effective Dates

IT IS FURTHER ORDERED that this Order is final and effective upon the date of its publication on the Commission's website (ftc.gov) as a final order. This Order will terminate 20 years from the date of its issuance (which date may be stated at the end of this Order, near the Commission's seal), or 20 years from the most recent date that the United States or the Commission files a complaint (with or without an accompanying settlement) in federal court alleging any violation of this Order, whichever comes later; *provided, however*, that the filing of such a complaint will not affect the duration of:

- A. Any Provision in this Order that terminates in less than 20 years; and
- B. This Order if such complaint is filed after the Order has terminated pursuant to this Provision.

Provided, further, that if such complaint is dismissed or a federal court rules that the Respondent did not violate any provision of the Order, and the dismissal or ruling is either not appealed or upheld on appeal, then the Order will terminate according to this Provision as though the

complaint had never been filed, except that the Order will not terminate between the date such complaint is filed and the later of the deadline for appealing such dismissal or ruling and the date such dismissal or ruling is upheld on appeal.

By the Commission.

April Tabor
Secretary

SEAL:
ISSUED:

192-3203

**UNITED STATES OF AMERICA
BEFORE THE FEDERAL TRADE COMMISSION**

COMMISSIONERS: **Lina M. Khan, Chair**
 Rebecca Kelly Slaughter
 Christine S. Wilson
 Alvaro M. Bedoya

In the Matter of

EPIC GAMES, INC., a corporation.

DOCKET NO.

COMPLAINT

The Federal Trade Commission, having reason to believe that Epic Games, Inc., a corporation (“Respondent” or “Epic”), has violated the provisions of the Federal Trade Commission Act, and it appearing to the Commission that this proceeding is in the public interest, alleges:

Summary of Case

1. Epic is the developer and distributor of the hit video game Fortnite, which is popular among kids. Though Fortnite itself is free to download and play, Epic charges consumers for certain in-game items, such as costumes, dance moves, and item-filled piñatas shaped like llamas. The problem: in many cases, Epic – employing myriad design tricks known as “dark patterns” – has charged consumers for such items without first obtaining their express informed consent, and then has banned consumers from accessing previously paid-for content when they have disputed unauthorized charges with their credit card providers.

2. Millions of consumers have complained to Epic about these unfair practices and disputed Epic’s unauthorized charges with their credit card providers. Epic’s own employees also have repeatedly raised concerns about these practices and recommended measures to address them. Yet despite consumers’ repeated complaints and employees’ concerns, Epic has persisted in its unlawful conduct.

Respondent

3. Respondent Epic Games, Inc. is a Maryland corporation with its principal office or place of business at 620 Crossroads Blvd., Cary, North Carolina 27518.

4. Respondent has advertised, marketed, offered for sale, sold, and distributed products to consumers, including the video game Fortnite and Fortnite-related digital content.

5. The acts and practices of Respondent alleged in this Complaint have been in or affecting commerce, as “commerce” is defined in Section 4 of the Federal Trade Commission Act.

Epic’s Business Activities

6. Epic is the developer of the video game Fortnite, which is available on multiple platforms, including Sony PlayStation, Microsoft Xbox, and Nintendo Switch game consoles, mobile devices with Google Android, and personal computers (“PCs”) with Windows operating systems. Fortnite has previously been available on Apple iOS (mobile devices) and Mac OS (PCs) operating systems. Launched in July 2017, Fortnite has more than 400 million registered users, many of whom are children or the parents of children who use Fortnite.

7. Epic also built and runs the Epic Games Store, an online video game store through which it distributes Fortnite and other video games developed by third parties to PC users.

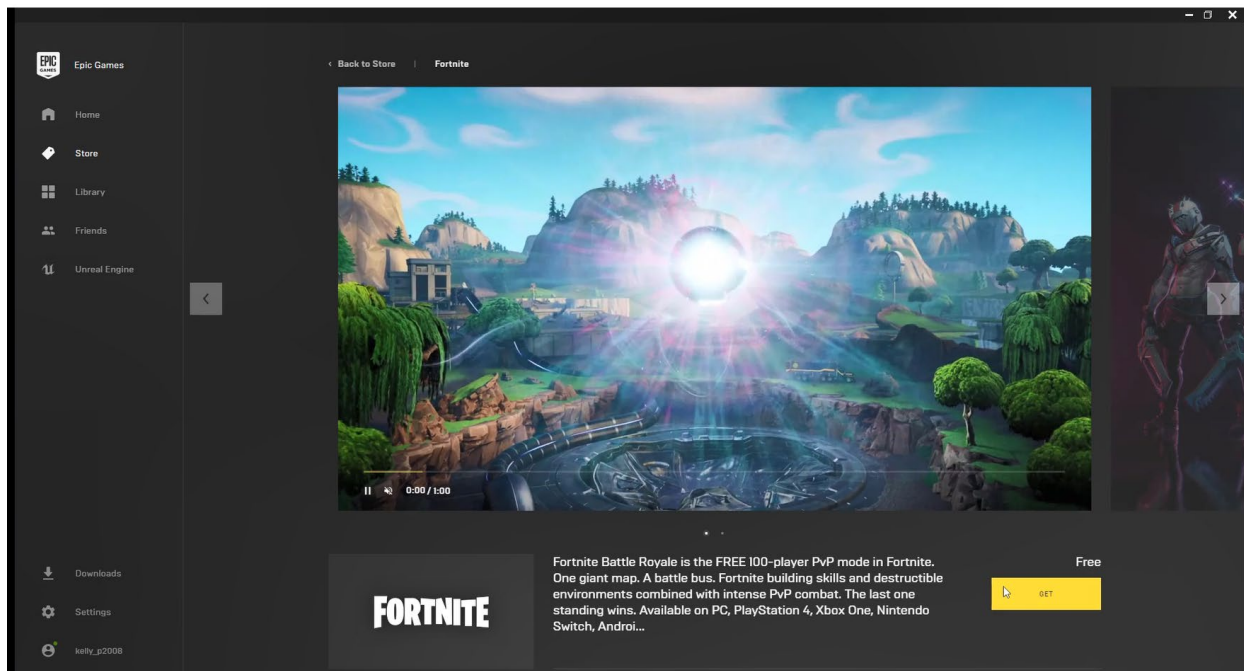
8. Fortnite is free to download, though Epic also sells a premium version of the game that costs money to download.

9. At the time of Fortnite’s launch, when consumers first made a purchase through Epic – for example, of any video game – Epic saved consumers’ payment information by default and used it to bill consumers for future charges, including charges incurred by children while playing Fortnite or other games. Many consumers did not realize that Epic had saved their cards.

Downloading Fortnite from the Epic Games Store

10. Account holders can download Fortnite by visiting the Epic Games Store and searching for the game by name or browsing the various categories within the store. At times, Fortnite has appeared under the categories “Most Popular” and “Free to Play.” Epic displays search results or the contents of a category in rows of icons. Below each icon is the title and price of the game. The price listed for Fortnite is “Free.”

11. Below is a screenshot of what consumers have seen after clicking on the Fortnite icon on a personal computer.



12. Next to a brief description of the game is a yellow “GET” button to initiate installation. Above the box, Epic reminds consumers that Fortnite is “Free.”

13. If the account holder had scrolled down the page, they could have viewed the full game description, the game’s age rating, and other information. At the very bottom of the page, and “below the fold” (meaning that the account holder would not have seen it without scrolling down), was a small white box containing the game’s age rating. Below the age rating, in tiny font, was text stating “In-Game Purchases/Users Interact.” Epic did not provide any further information about how or when it seeks account holder authorization for in-game charges. *See Exhibit 1.*

14. More than three years after it began billing for in-game charges, Epic began including this box nearer the top of the page, but still under the “GET” button. The download page still does not explain how or when Epic seeks account holder authorization for in-game charges. *See Exhibit 2.*

Epic Has Charged Parents and Other Account Holders Without Authorization

15. The consumers who create Epic accounts and download Fortnite include parents who download Fortnite so that their kids can play the game.

16. Once Fortnite has been downloaded, kids can compete against other players in head-to-head battles, complete missions and objectives, or develop their own mini-games and build custom structures. Kids also can customize a character’s appearance with different outfits, emotes (*i.e.*, dance moves), and gliders (collectively, “Cosmetics”), use “Battle Passes” to unlock

additional in-game content (such as missions or Cosmetics), or in the premium version of the game, obtain piñatas shaped like llamas that are filled with various items (“Llamas”).

17. To obtain Cosmetics, Battle Passes, and Llamas, kids use “V-Bucks.” For more than a year after Epic began offering in-app purchases, kids could acquire V-Bucks simply by pressing buttons with no parental or card holder action or consent. At that point, Epic automatically billed the parents’ stored payment information for the V-Bucks. Epic did not require parents to enter a PIN or password to authorize V-bucks purchases, or even allow them to enable such a control.

18. Epic began and persisted engaging in these practices despite prior public law enforcement actions against Amazon, Apple, and Google for failing to obtain parents’ consent to charges in kids’ gaming apps. *See, e.g.,* Complaint at 7-8, *FTC v. Amazon.com, Inc.*, No. 2:14-cv-01038 (W.D. Wash. July 10, 2014); *FTC v. Amazon.com, Inc.*, No. C14-1038-JCC, 2016 WL 10654030, at *11 (W.D. Wash. July 22, 2016) (finding Amazon liable under Section 5 of the FTC Act); Complaint at 4-5, *In re Apple, Inc.*, No. C-4444 (Mar. 25, 2014); Complaint at 6-7, *In re Google, Inc.*, No. C-4499 (Dec. 2, 2014).

19. Many parents have been surprised to learn that Epic charged them hundreds of dollars for kids’ in-app activities that they did not authorize. For example, one parent complained to Epic:

Hello Epic Games, The charges associated with this account were made without my authorization. This account is associated with my 10 year old son’s account and I am really disappointed that there is no check and balances that alerted me of these charges, and a 10 year old can purchase coins worth almost \$500 so easily.

20. Another parent complained about authorizing a one-time purchase, but then being billed by Epic for additional charges without consent:

Epic Games is swindling parents with unauthorized game purchases, tricking young consumers & using shady practices for billing. I authorized a 1-time Epic Games purchase for my 11 yr-old son, only to discover EG did NOT erase my credit card info, & thus my son has been making unauthorized purchases, racking up \$140 in less than 8 days after the initial authorized purchase.

21. In fact, according to company documents, “Unrecognized and Fraudulent Charges” – a category that includes unapproved kid charges – was among the top five reasons consumers complained to Epic.

22. Epic employees also raised concerns about unauthorized kid charges and recommended measures to address them. For example, in June 2018, Epic employees discussed plans to give account holders the option not to save their credit card information. As an Epic Senior Producer acknowledged, “[m]any people ... didn’t even realize it [their credit card] was saved.”

23. In reply, Epic's Fraud and Risk Consultant added that the "goal" of the feature was to "mak[e] sure the parent doesn't have to store the card so we can prevent some of the unapproved kid purchases / friendly fraud." However, Epic did not give consumers the option *not* to have their payment information saved by Epic until October 2018.

24. Even then, Epic only added a small checkbox to the checkout page with the small print, "Make this a one-time payment. Don't save my credit card." If consumers failed to notice and check the box prior to completing the transaction, Epic saved their payment information and automatically billed them for future purchases. Further, Epic still did not inform account holders that Epic would automatically bill their saved credit card for future charges. And it was aware that "typically the behavior [was] not to check this box[.]"

25. Epic's Fraud and Risk Consultant also recommended in June 2018 that Epic begin requiring account holders with saved credit cards to confirm their CVV numbers before charging them. According to his email, "This is standard / best practice and it prevents kids from using mom's credit card without her permission[.]" However, Epic did not begin requiring cardholders to re-enter their credit card CVV numbers for most transactions before charging them until November 2018. By then, Epic had billed account holders for more than 200 million V-Bucks charges (totaling more than \$4 billion), many of them unauthorized.





Epic Has Billed Users for Unauthorized Digital Currency Charges

26. In addition to charging parents and other account holders without authorization for kids' in-app activities, Epic has designed its in-game purchase flows in a way that makes it easy for users of all ages to incur unwanted charges.

27. Take the purchase flow for Cosmetics. Users can browse and view Cosmetic items in the Fortnite Item Shop. If a user selects a particular item, Epic presents them with various options, including the option to purchase the item, play the dance again, preview different outfit styles, or go back to the Item Shop.

28. On mobile devices, the button to preview different outfit styles appears directly below the button to purchase items, as shown in the screen capture below. To preview styles, players must tap the button labeled "PREVIEW STYLES" with their finger. But if in the process a player instead taps the adjacent button labeled "PURCHASE," Epic immediately deducts the cost of the item from the player's V-Bucks balance.



29. On video game controllers, the button to purchase items is located immediately adjacent to the buttons for other common in-game actions. For example, on the standard PlayStation controller (pictured below), the button to purchase an item ('Square' or ) is located next to the buttons to take other common actions, such as to play a dance move again ('Triangle' or ) go back to the previous screen ('Circle' or ) or preview different outfit styles ('Cross' or ) all of which are pressed using the same thumb. If while browsing an item players accidentally bump the 'Square' button with their thumb, Epic immediately deducts the price of the item from their V-Bucks balance.



30. The button to purchase items on video game consoles is also the same as the button associated with other actions that do not result in the user incurring a charge. For

example, the square button is used to change the style of an already purchased outfit in the Fortnite Locker. If a player wishes to preview different styles in the Item Shop and uses the same button the player would use to change styles in the Locker, Epic immediately deducts the cost of the item from the player's V-Bucks balance.

31. In none of the scenarios just described does Epic require users to take any further action before charging them, such as asking them to confirm their purchase. By contrast, as discussed below, Epic requires users to press and hold a button in order to cancel unwanted charges and to confirm their request for a refund.

32. Players similarly can incur unwanted charges while browsing Battle Passes. For example, on PlayStation consoles, the button to purchase Cosmetics is 'Square' and the button to preview styles is 'Cross.' However, these buttons are inverted for Battle Passes. The button to purchase a Battle Pass is 'Cross' and the button to get more information is 'Square.' Prior to June 2020, if a user wanted to get more information about a Battle Pass before purchasing it but clicked 'Cross' instead of 'Square,' Epic immediately deducted the cost of the pass from the player's V-Bucks balance. It did not require users to take any further action before charging them, such as asking them to confirm the purchase.

33. Numerous users have incurred unwanted charges from Epic while browsing items in Fortnite. Indeed, as an Epic Player Support representative acknowledged in an email to a consumer, "It is very common to make an accidental purchase!"

34. Epic has received more than one million complaints from consumers related to such unwanted charges. The following complaints are representative:

- "We are really disappointed that you are unable to help us as we feel my Sons V Buck accidental spend would have been avoided if your systems had more confirmation steps before buying items. Most other games companies have clear steps before you can purchase, e.g. item goes into basket, then questions asking 'are you sure you want to purchase this?', 'Press this button to complete your purchase'. Your purchase process has none of these steps and we believe that it's designed to take advantage of young users and accidental purchase."
- "I'd like to raise a concern I have with the in-game store - there is no 'confirm purchase' button when you go to buy a skin/glider/axe....The reason I say this is because about 2 months ago I accidentally misclicked 'purchase' on a glider I had no intentions of buying. It instantly just took the V-Bucks and that was that...."
- "As you know today the vintage Skull Trooper skin got released and was excited to buy it, however when I was flipping through the item shop I noticed the new Skull Sickle. I wanted to look at the different colors that were offered with this harvesting tool and instead of pressing 'A' to 'Preview Styles', I clicked 'X' and it automatically bought the pickax!!! There should be an extra step when buying things from the item shop because everything happened so fast. I would like a refund because I was going to use those extra V-Bucks for a different Halloween skin that hasn't been released yet."

- “This was an accident made by a 9 year old, who immediately said, ‘Oh no Dad, I clicked the wrong button.’ But because of your One-Click purchasing, and no ability to turn on purchase confirmation or parental blocks for the item store, and a little promoted unobtrusive limited time button to cancel, you are going to say that we are stuck with it.”
- “I accidentally purchased a skin using my V-Bucks when I just meant to rotate it and check it out. Fat-fingered the ‘Square’ button on the PS4.”

35. Epic’s employees also have raised concerns about unwanted charges and repeatedly recommended measures to address them.

- In Spring 2018, Epic executives and managers discussed adding a confirm purchase button to prevent accidental purchases. Though employees were concerned that “it is a bit of a dark UX [user experience] pattern to not have confirmation on (once you hit [the refund] limit) ‘destructive’ actions,” Epic feared that adding a confirmation button would add “friction,” “result in a decent number of people second guessing their purchase,” and reduce the number of “impulse purchases.”
- On May 4, 2018, an Epic UX designer working on the refund feature recommended that Epic “also implement a split-second ‘Hold to Purchase’ mechanic when buying an item[,]” which he believed “would reduce accidental purchases without adding friction.”
- On June 23, 2018, Epic’s Director of Player Support circulated a Player Support Status Update that included a list of “Top Ticket Issues.” Number four on the list is: “Accidental Purchase Claims - (around 6-7%) players are able to purchase items and battle pass tiers without confirmation screens on PC and console. If we added confirmation screens for these platforms, it would bring additional clarity and provide more safeguards for all.”
- On July 2, 2018, Epic’s Director of Player Support circulated another Player Support Status Update that included a list of “Top Ticket Issues.” Number 5 on the list is: “Accidental Purchase Claims – same as previously mentioned. Additional confirmation screens with the ability to bypass with a 1-click option that you must explicitly setup the first time could be a solution. [Player Support] recommends offering players both options, similar to Amazon before setting up 1-click.”
- On July 20, 2018, an Epic Community Coordinator asked if there were any plans to add a confirmation step for in-game purchases, noting: “This is actually a huge complaints on our side and could remove most of the ‘excuses’ about accidental purchase: ‘I wanted to press Replay, my PS4 was in sleep mode’, etc. This is something I wanted to push forward but didn’t have time to build a real case around, has this already been discussed in the past?”
- On October 10, 2018, the same Community Coordinator emailed Epic’s Lead of Online Gameplay Systems “to check if anything is happening around this topic.” He further stated: “We still have regular complaints that we are not asking for confirmation before

purchasing and that players have to use refund tickets or are out of tickets because of a button push. It's especially the case on controllers when getting the console out of sleep or hitting the 'replay' option on emotes."

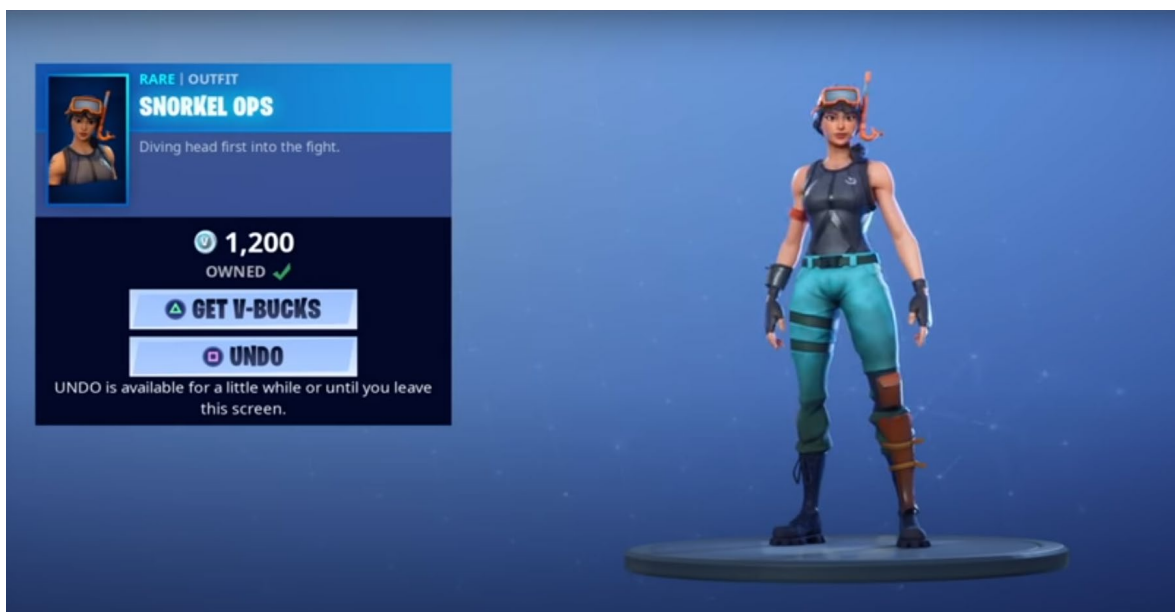
- On March 8, 2019, Epic's Lead of Online Gameplay Systems recommended that Epic add a confirmation button for in-game purchases. In support of this recommendation, he noted, "I know I personally play on Switch and I am VERY careful when I am in the shop to the extent I am a little paranoid of bumping the controller and I am spending free v-bucks."
- In April 2019, the Community Coordinator noted that "[o]n social media the confirmation button is highly requested, especially for PS4." According to the email, "some of [the complaints] refer to various issues, such as buying while in a loading screen (I think pressing buttons during a loading screen and the game still taking the command at the end of the loading screen), mistake made to preview styles (some players reports the button to view style in the locker and in the shop are different), or simple button press mistakes."

36. Despite these repeated complaints and recommendations from customers and employees, Epic continues to charge users for in-game items without their authorization. It only started requiring an additional step (beyond pressing a single button) for one type of item (Battle Passes) in or around June 2020 – three years after Epic began billing consumers for in-game charges, and also after learning that it was under investigation by the FTC. For all other items (*i.e.*, Cosmetics and Llamas), it continues to charge users based on the press of a single button.

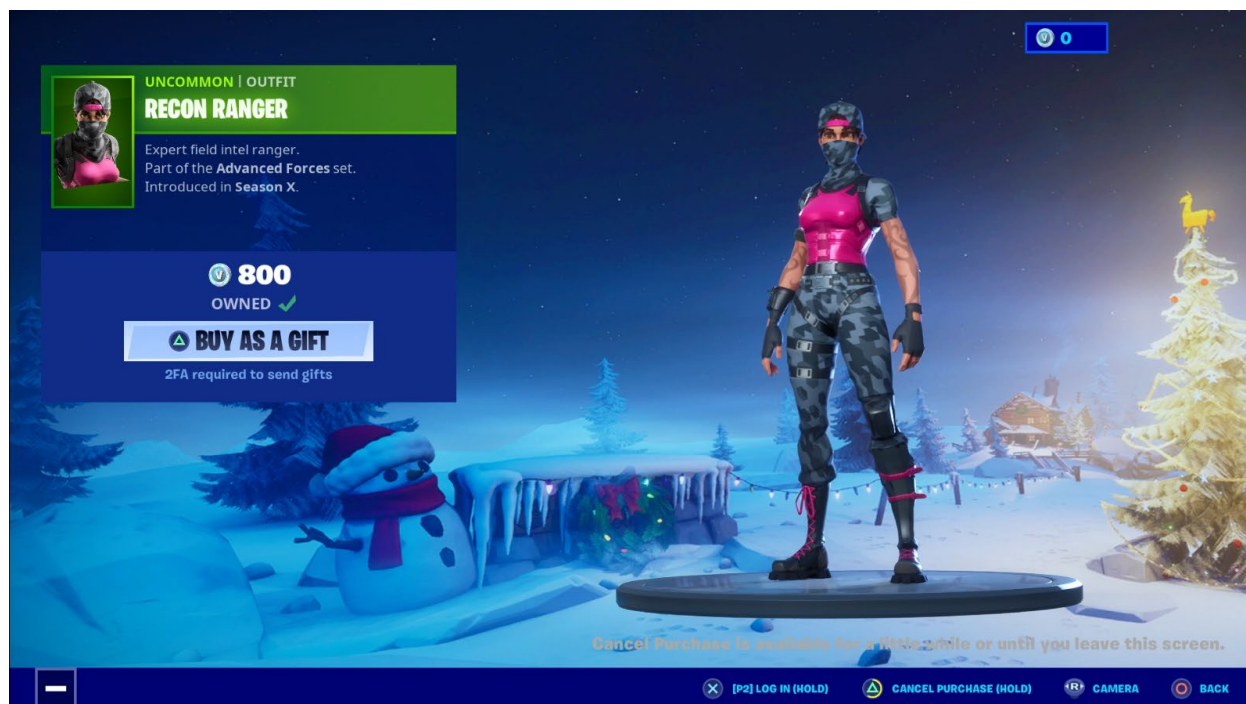
Epic Uses Dark Patterns to Deter Users from Cancelling or Requesting Refunds for V-Bucks Charges

37. Epic has never allowed users to cancel or undo charges for Battle Passes or Llamas and did not begin allowing users to cancel Cosmetics charges until June 2019. Even then, Epic uses design tricks, sometimes referred to as "dark patterns," to deter consumers from cancelling or requesting refunds for unauthorized V-Bucks charges.

38. In June 2019, Epic began allowing users to cancel Cosmetics charges, but only for a limited time and only if they remained on the purchase screen. Initially, an "Undo" button appeared on the user's screen in the same area as the "Get V-Bucks" button, as shown below.



39. However, after numerous players used the “Undo” button to cancel unwanted charges – “‘I accidentally purchased an item I did not want’ was the number one ‘reason’ for using the ‘Undo’ button[.]” according to an Epic customer survey – Epic took steps to reduce its prominence. Specifically, as shown below, Epic changed the name of the button to “Cancel Purchase,” reduced the size of the button, moved it to the bottom of the screen, and required consumers to push and hold a button on their controller (even though Epic does not require consumers to do so to purchase items in the first place).



40. After making these changes, Epic “observed a roughly 35% decline in the net undo-rate (% of undo-eligible purchases that result in an undo that is not followed by a re-purchase),” according to an email from a Senior Product Manager.

41. Consumers have complained that they did not see the option to cancel due to Epic’s efforts to obscure it. For example, in September 2019, a parent emailed Epic Player Support to complain about an unauthorized charge incurred while his 9-year-old was playing Fortnite and to request a refund. After Player Support responded by explaining Epic’s refund policy (discussed below), he responded: “I have already used my refund tokens, I used them before you implemented the cancel purchase button. You know the button that I never saw any big announcement about, the button that is small and unobtrusive, that because of your refund tokens I didn’t know was there.”

42. Epic also imposes strict limitations on refunds. Epic does not refund charges for Battle Passes or Llamas, and refunds Cosmetics charges only in some cases. Moreover, since June 2018, Epic has restricted users to a lifetime maximum of three refunds per account. Epic tracks users’ refunds by issuing them tokens when they create an account. Many consumers have reported using all of their refund tokens and therefore not being able to obtain a refund for unauthorized charges billed by Epic. Prior to June 2018, consumers could not request a refund through the Fortnite app but had to complete a form on Epic’s website.

43. In addition, Epic deliberately requires consumers to find and navigate a difficult and lengthy path to request a refund through the Fortnite app. To start, Epic hid the link to submit a refund request under the “Settings” tab on the Fortnite app menu, far removed from the purchase screen, even though requesting a refund is not a game or device setting. The Epic user experience (“UX”) designer who helped design the refund request path reported that he put the link there in an “attempt to obfuscate the existence of the feature” and that “not a single player found this option in the most recent round of UX testing.” When the designer asked whether he should make the feature easier to find, he was told by a superior, “it is perfect where it is at.”

44. Even if consumers locate the refund request path, Epic forces them to navigate several unnecessary steps to submit the request. For example, Epic requires consumers to supply a reason for their refund request (even though Epic permits account holders to use their three lifetime refunds for any reason) and to confirm their intent to request a refund (even though Epic does not require users to confirm their intent to purchase items in the first instance). The Epic UX designer referred to this strategy of discouraging consumers from requesting refunds by requiring consumers to take multiple unnecessary steps as “add[ing] friction for friction’s sake.”

Epic Denies Consumers Access to Their Fortnite Accounts for Disputing Epic’s Unauthorized Charges

45. When consumers incur fraudulent or unauthorized charges to their credit cards, they have the right to dispute the charges through their financial institutions and request that the money be charged back to the company that initiated the charge. *See Fair Credit Billing Act*, 15 U.S.C. § 1666, *et seq.* This process commonly is referred to as a “chargeback.”

46. Since July 2017, Epic has received tens of thousands of chargebacks, totaling

millions of dollars. In fact, Epic received so many chargebacks from consumers that Visa and Mastercard placed Epic in their respective chargeback monitoring programs, threatening Epic's ability to process consumer payments through the networks going forward.

47. Since at least February 2018, when consumers have disputed Epic's unauthorized charges with their credit card companies and asked that they be charged back, Epic has deactivated their Fortnite accounts regardless of the reason for the dispute or whether it was upheld.

48. Consumers' Fortnite accounts store all Fortnite content they have ever purchased. Thus, consumers whose accounts Epic has banned have not only lost access to the Fortnite content that was the subject of the billing dispute, but also all content they have ever purchased on that account. Epic has not refunded consumers for this previously paid-for content, which for some consumers has totaled hundreds or even thousands of dollars. Only if consumers have contacted Epic, and Epic has determined that there is no risk of fraud, has Epic agreed to reactivate consumers' accounts. Even then, they have only agreed to do so one time. If consumers dispute another fraudulent or unauthorized charge, Epic permanently bans them without refunding them for their paid-for content.

49. Consumers have been unaware of Epic's practice of denying them access to paid-for content for initiating chargebacks. To the extent Epic mentions depriving consumers of content, it buries such information in its Terms of Service, End User License Agreement, or on its website, and even then, makes no mention of depriving access to paid-for content for disputing unauthorized charges with their bank or credit card provider.

50. Epic has received at least thousands of complaints from consumers whose accounts were banned due to chargebacks.

51. Despite these complaints, Epic continues to deactivate the accounts of consumers who dispute Epic's unauthorized charges with their credit card companies.

52. Based on the facts and violations of law alleged in this Complaint, the FTC has reason to believe that Respondent is violating or is about to violate laws enforced by the Commission.

VIOLATIONS OF THE FTC ACT

53. Section 5(a) of the FTC Act, 15 U.S.C. § 45(a), prohibits "unfair or deceptive acts or practices in or affecting commerce."

54. Acts or practices are unfair under Section 5 of the FTC Act if they cause or are likely to cause substantial injury to consumers that consumers cannot reasonably avoid themselves and that is not outweighed by countervailing benefits to consumers or competition. 15 U.S.C. § 45(n).

Count I

Unfair Billing

55. In numerous instances, Respondent has charged consumers without having obtained consumers' express informed consent.

56. Respondent's actions as described in Paragraph 55 have caused or are likely to cause substantial injury to consumers that consumers cannot reasonably avoid themselves and that is not outweighed by countervailing benefits to consumers or competition.

57. Therefore, Respondent's acts or practices as set forth in Paragraph 55 constitute unfair acts or practices in violation of Section 5 of the FTC Act, 15 U.S.C. § 45(a) and (n).

Count II Unfair Denial of Account Access

58. In numerous instances, Respondent has denied consumers access to their Fortnite accounts for disputing unauthorized charges.

59. Respondent's actions as described in Paragraph 58 have caused or are likely to cause substantial injury to consumers that consumers cannot reasonably avoid themselves and that is not outweighed by countervailing benefits to consumers or competition.

60. Therefore, Respondent's acts or practices as set forth in Paragraph 58 constitute unfair acts or practices in violation of Section 5 of the FTC Act, 15 U.S.C. § 45(a) and (n).

61. The acts and practices of Respondent as alleged in this Complaint constitute unfair or deceptive acts or practices, in or affecting commerce, in violation of Section 5(a) of the Federal Trade Commission Act.

THEREFORE, the Federal Trade Commission this _____ day of _____, 20__, has issued this Complaint against Respondent.

By the Commission.

April J. Tabor
Secretary

SEAL:

EXHIBIT 18

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF NORTH CAROLINA
WESTERN DIVISION
No. 5:22-CV-00518-BO

UNITED STATES OF AMERICA,)	
)	
Plaintiff,)	
)	
v.)	STIPULATED ORDER FOR PERMANENT
)	INJUNCTION AND CIVIL PENALTY
EPIC GAMES, INC.,)	JUDGMENT
)	
Defendant.)	

Plaintiff, the United States of America, acting upon notification and authorization to the Attorney General by the Federal Trade Commission (“Commission” or “FTC”), filed its Complaint for Civil Penalties, Permanent Injunction, and Other Relief (“Complaint”), for a permanent injunction, civil penalties, and other relief in this matter, pursuant to Sections 13(b), 16(a)(1), and 19 of the Federal Trade Commission Act (“FTC Act”), 15 U.S.C. §§ 53(b), 56(a)(1), and 57(b), the Children’s Online Privacy Protection Act, 15 U.S.C. §§ 6502(c) and 6505(d), and the Commission’s Children’s Online Privacy Protection Rule (“COPPA Rule”), 16 C.F.R. Part 312. Defendant has waived service of the summons and the Complaint. Plaintiff and Defendant stipulate to the entry of this Stipulated Order for Permanent Injunction and Civil Penalty Judgment (“Order”) to resolve all matters in dispute in this action between them.

THEREFORE, IT IS ORDERED as follows:

FINDINGS

1. This Court has jurisdiction over this matter.

2. The Complaint charges that Defendant violated the COPPA Rule and the FTC Act by developing and operating an Internet-enabled video game with unfair default information sharing settings for Children and Teens; by failing to provide notice on Defendant's website or online service, and direct notice to Parents, of the Personal Information Defendant Collects online from Children, how Defendant uses such information, and Defendant's Disclosure practices; by failing to Obtain Verifiable Parental Consent before any Collection or use of Personal Information from Children; by failing to provide, at the request of Parents, a description of the specific types or categories of Personal Information Collected from Children; and by failing to Delete, at the request of Parents, Personal Information Collected from Children.

3. Defendant neither admits nor denies any of the allegations in the Complaint, except as specifically stated in this Order. Only for purposes of this action, Defendant admits the facts necessary to establish jurisdiction.

4. Defendant waives any claim that it may have under the Equal Access to Justice Act, 28 U.S.C. § 2412, concerning the prosecution of this action through the date of this Order, and agree to bear their own costs and attorney fees.

5. Defendant waives all rights to appeal or otherwise challenge or contest the validity of this Order.

DEFINITIONS

For the purpose of this Order, the following definitions apply:

- A. **"Affirmative Express Consent"** means any freely given, specific, informed, and unambiguous indication of an individual's wishes

demonstrating agreement by the individual, such as by a clear affirmative action, following a Clear and Conspicuous disclosure to the individual of: (i) all information required by sub-Provision III.C; (ii) a simple, easily-located means for the individual to withdraw consent; (iii) any limitations on the individual's ability to withdraw such consent; and (iv) all other information material to the provision of consent. The Clear and Conspicuous disclosure must be separate from any "privacy policy," "terms of service," "terms of use," or other similar document. The following do not constitute Affirmative Express Consent:

1. Inferring consent from the hovering over, muting, pausing, or closing of a given piece of content by the consumer; or
2. Obtaining consent through a user interface that has the effect of subverting or impairing user autonomy, decision-making, or choice.

B. **"Biometric Information"** means data that depicts or describes the physical or biological traits of an identified or identifiable individual, including: (1) identifiable depictions or identifiable information derived therefrom (e.g., extracts, models, or transcripts derived from image or video files); (2) copies of, or identifiable information derived from, an individual's facial features (e.g., faceprints, face embeddings, iris scans, retina scans, etc.), fingerprints, handprints, voice, genetics, or other physical or biological features; or (3) copies of, or identifiable information derived from, an

individual's characteristic movements or gestures (e.g., gait or typing patterns).

C. **“Child”** or **“Children”** means an individual or individuals under the age of 13.

D. **“Clear(ly) and Conspicuous(ly)”** means that a required disclosure is difficult to miss (i.e., easily noticeable) and easily understandable by ordinary consumers, including in all of the following ways:

1. In any communication that is solely visual or solely audible, the disclosure must be made through the same means through which the communication is presented. In any communication made through both visual and audible means, such as a television advertisement, the disclosure must be presented simultaneously in both the visual and audible portions of the communication even if the representation requiring the disclosure is made in only one means.
2. A visual disclosure, by its size, contrast, location, the length of time it appears, and other characteristics, must stand out from any accompanying text or other visual elements so that it is easily noticed, read, and understood.
3. An audible disclosure, including streaming video, must be delivered in a volume, speed, and cadence sufficient for ordinary consumers to easily hear and understand it.

4. In any communication using an interactive electronic medium, such as the Internet or software, the disclosure must be unavoidable.
 5. The disclosure must use diction and syntax understandable to ordinary consumers and must appear in each language in which the representation that requires the disclosure appears.
 6. The disclosure must comply with these requirements in each medium through which it is received, including all electronic devices and face-to-face communications.
 7. The disclosure must not be contradicted or mitigated by, or inconsistent with, anything else in the communication.
 8. When the representation or sales practice targets a specific audience, such as Children, Teens, the elderly, or the terminally ill, “ordinary consumers” includes reasonable members of that group.
- E. **“Collects,” “Collected,” “Collecting,” or “Collection”** means, for the purposes of Definitions L, N, P, T, X, Z, AA, and Provision I of this Order only, the gathering of any Personal Information from a Child by any means, including but not limited to:
1. Requesting, prompting, or encouraging a Child to submit Personal Information online;
 2. Enabling a Child to make Personal Information publicly available in identifiable form; or
 3. Passive tracking of a Child online.

- F. **“Compliance Date”** means thirty (30) days after entry of this Order.
- G. **“Covered Business”** means: (1) Defendant; and (2) any business that Defendant controls, directly or indirectly, that (i) discloses Covered Information collected from one user to another user, (ii) enables the disclosure of Covered Information from one user to another user, or (iii) enables any user to communicate with any other user. For purposes of this Order, to the extent that, after entry of this Order, Defendant obtains direct or indirect control over a business that discloses Covered Information collected from one user to another user, enables the disclosure of Covered Information from one user to another user, or enables any user to communicate with any other user, such business becomes a Covered Business sixty (60) days after the date on which Defendant obtained such control.
- H. **“Covered Information”** means the following information from or about an individual consumer: (1) Personal Information; (2) Biometric Information; (3) the content of any communication from an individual; (4) credit or debit card information; (5) a date of birth; (6) a first and last name; (7) a home or other physical address including street name and name of a city or town; (8) Online Contact Information; (9) a screen or user name where it functions in the same manner as Online Contact Information; (10) a telephone number; (11) a Social Security number; (12) a Persistent Identifier; (13) geolocation information sufficient to identify street name and name of a city or town; or

(14) information concerning an individual collected online and combined with a Persistent Identifier.

- I. **“Covered Product or Service”** means any Internet-enabled product or service controlled or operated, directly or indirectly, by any Covered Business, that: (1) discloses Covered Information collected from one user to another user; (2) enables the disclosure of Covered Information from one user to another user; or (3) enables any user to communicate with any other user.
- J. **“Defendant”** means Epic Games, Inc., a corporation, and its successors and assigns.
- K. **“Delete”** means to remove Personal Information such that it is not maintained in retrievable form and cannot be retrieved in the normal course of business.
- L. **“Disclose,” “Disclosed,” “Disclosing,” or “Disclosure”** means, with respect to Personal Information, for the purposes of Definitions N, X, Z, AA, and Provision I of this Order only:
 - 1. The Release of Personal Information Collected by an Operator from a Child in identifiable form for any purpose, except where an Operator provides such information to a Person who provides Support for the Internal Operations of the Website or Online Service; and
 - 2. Making Personal Information Collected by an Operator from a Child publicly available in identifiable form by any means, including but not

limited to a public posting through the Internet, or through a personal home page or screen posted on a website or online service; a pen pal service; an electronic mail service; a message board; or a chat room.

- M. **“Internet”** means collectively the myriad of computer and telecommunication facilities, including equipment and operating software, which comprises the interconnected world-wide network of networks that employ the Transmission Control Protocol/Internet Protocol, or any predecessor or successor protocols to such protocol, to communicate information of all kinds by wire, radio, or other methods of transmission.
- N. **“Obtain, Obtained, or Obtaining Verifiable Parental Consent”** means making any reasonable effort (taking into consideration available technology) to ensure that before Personal Information is Collected from a Child, a Parent of the Child:
1. Receives notice of the Operator’s Personal Information Collection, use, and Disclosure practices; and
 2. Authorizes any Collection, use, or Disclosure of the Personal Information.
- O. **“Online Contact Information”** means an email address or any other substantially similar identifier that permits direct contact with a Person online, including but not limited to, an instant messaging user identifier, a voice over internet protocol (VOIP) identifier, or a video chat identifier.

- P. “**Operator**” means any Person who operates a website located on the Internet or an online service and who Collects or maintains Personal Information from or about the users of or visitors to such website or online service, or on whose behalf such information is Collected and maintained, or offers products or services for sale through the website or online service, where such website or online service is operated for commercial purposes involving commerce among the several States, or with one or more foreign nations; in any territory of the United States or in the District of Columbia, or between any such territory and another such territory or any State or nation; or between the District of Columbia and any State, territory, or foreign nation.
- Q. “**Parent**” includes a legal guardian.
- R. “**Persistent Identifier**” means an identifier that can be used to recognize a user over time and across different websites or online services. Such Persistent Identifier includes, but is not limited to, a customer number held in a cookie, an Internet Protocol (IP) address, a processor or device serial number, or unique device identifier.
- S. “**Person**” means any individual, partnership, corporation, trust, estate, cooperative, association, or other entity.
- T. “**Personal Information**” means individually identifiable information about an individual Collected online, including:
1. A first and last name;

2. A home or other physical address including street name and name of a city or town;
3. Online Contact Information;
4. A screen or user name where it functions in the same manner as Online Contact Information;
5. A telephone number;
6. A Social Security number;
7. A Persistent Identifier;
8. A photograph, video, or audio file where such file contains a Child's image or voice;
9. Geolocation information sufficient to identify street name and name of a city or town; or
10. Information concerning the Child or the Parents of that Child that the Operator Collects online from the Child and combines with a Persistent Identifier.

U. **“Principal Executive Officer”** means Timothy Sweeney for so long as he serves as Chief Executive Officer of Defendant, or such other officer (regardless of title) that is designated in Defendant's bylaws or by resolution of Defendant's board of directors as being the most senior executive officer of Defendant, acting solely in his official capacity on behalf of Defendant; or if Timothy Sweeney no longer serves in such a position, then such other individual serving as the Chief Executive Officer

of Defendant, or such other officer (regardless of title) that is designated in Defendant's bylaws or by resolution of Defendant's board of directors as being the most senior executive officer of Defendant, acting solely in their official capacity on behalf of Defendant. In the event that Timothy Sweeney is not the Principal Executive Officer and such position is jointly held by two or more individuals, then each of such individuals must be deemed to be a Principal Executive Officer.

- V. **"Privacy Setting"** means any control or setting that allows a user of a Covered Product or Service, or their Parent, to enable, and subsequently disable, restrict, or otherwise control, any disclosure of the user's Covered Information to, or ability of the user to communicate with or receive communications from, any other user of the Covered Product or Service.
- W. **"Release of Personal Information"** means the sharing, selling, renting, or transfer of Personal Information to any Third Party.
- X. **"Support for the Internal Operations of the Website or Online Service"** means:
 - 1. Those activities necessary to:
 - a. Maintain or analyze the functioning of the website or online service;
 - b. Perform network communications;
 - c. Authenticate users of, or personalize the content on, the website or online service;

- d. Serve contextual advertising on the website or online service or cap the frequency of advertising;
 - e. Protect the security or integrity of the user, website, or online service;
 - f. Ensure legal or regulatory compliance; or
 - g. Fulfill a request of a Child as permitted by 16 C.F.R. §§ 312.5(c)(3) and (4);
 - 2. So long as the information Collected for the activities listed in paragraphs (1)(a)-(g) of this definition is not used or Disclosed to contact a specific individual, including through behavioral advertising, to amass a profile on a specific individual, or for any other purpose.
- Y. **“Teen”** means an individual aged 13, 14, 15, 16, or 17.
- Z. **“Third Party”** means, for the purpose of Definition W only, any Person who is not:
- 1. An Operator with respect to the Collection or maintenance of Personal Information on the Web site or online service; or
 - 2. A Person who provides Support for the Internal Operations of the Web site or Online Service and who does not use or Disclose information protected under the COPPA Rule (attached as Appendix A) for any other purpose.

AA. **“Website or Online Service Directed to Children”** means a commercial website or online service, or portion thereof, that is targeted to Children.

1. In determining whether a website or online service, or a portion thereof, is directed to Children, the Commission will consider its subject matter, visual content, use of animated characters or Child-oriented activities and incentives, music or other audio content, age of models, presence of Child celebrities who appeal to Children, language or other characteristics of the website or online service, as well as whether advertising promoting or appearing on the website or online service is directed to Children. The Commission will also consider competent and reliable empirical evidence regarding audience composition, and evidence regarding the intended audience.
2. A website or online service shall be deemed directed to Children when it has actual knowledge that it is Collecting Personal Information directly from users of another website or online service directed to Children.
3. A website or online service that is directed to Children under the criteria set forth in paragraph (1) of this definition, but that does not target Children as its primary audience, shall not be deemed directed to Children if it:
 - a. Does not Collect Personal Information from any visitor prior to Collecting age information; and

- b. Prevents the Collection, use, or Disclosure of Personal Information from visitors who identify themselves as under age 13 without first complying with the notice and parental consent provisions of the COPPA Rule (attached as Appendix A).
4. A website or online service shall not be deemed directed to Children solely because it refers or links to a commercial website or online service directed to Children by using information location tools, including a directory, index, reference, pointer, or hypertext link.

ORDER

I. INJUNCTION CONCERNING THE COLLECTION OF PERSONAL INFORMATION FROM CHILDREN

IT IS FURTHER ORDERED that, no later than the Compliance Date, Defendant and Defendant's officers, agents, employees, and attorneys, and all other Persons in active concert or participation with any of them, who receive actual notice of this Order, whether acting directly or indirectly, in connection with being an Operator of any Website or Online Service Directed to Children or of any website or online service with actual knowledge that it is Collecting or maintaining Personal Information from a Child, are hereby permanently restrained and enjoined from:

- A. Failing to make reasonable efforts, taking into account available technology, to ensure that a Parent of a Child receives direct notice of the Operator's practices with regard to the Collection, use, or Disclosure of Personal Information from Children, including notice of any material

- change in the Collection, use, or Disclosure practices to which the Parent has previously consented, unless the COPPA Rule (attached as Appendix A), provides an exception to providing such notice;
- B. Failing to post a prominent and clearly labeled link to an online notice of the Operator's information practices with regard to Children, if any, on the home or landing page or screen of its website or online service, and at each area of the website or online service where Personal Information is Collected from Children, unless the COPPA Rule (attached as Appendix A), provides an exception to providing such notice;
 - C. Failing to Obtain Verifiable Parental Consent before any Collection, use, or Disclosure of Personal Information from Children, including consent to any material change in the Collection, use, or Disclosure practices to which the Parent has previously consented, unless the COPPA Rule (attached as Appendix A), provides an exception to Obtaining Verifiable Parental Consent;
 - D. Failing to Delete a Child's Personal Information at the request of a Parent;
 - E. Retaining a Child's Personal Information for longer than is reasonably necessary to fulfill the purpose for which the information was Collected; and
 - F. Violating the COPPA Rule (attached as Appendix A).

II. INJUNCTION CONCERNING CHILDREN'S PERSONAL INFORMATION PREVIOUSLY COLLECTED

IT IS FURTHER ORDERED that Defendant, Defendant's officers, agents, employees, and attorneys, and all other Persons in active concert or participation with any of them, who receive actual notice of this Order, must:

- A. Within sixty (60) days of the Compliance Date, Delete all Personal Information that is associated, at the time of the Compliance Date, with any Fortnite user, unless:
 - 1. the user has provided age information through a neutral age gate identifying the user as age 13 or older; or
 - 2. Defendant has provided direct notice and Obtained Verifiable Parental Consent; and
- B. Within ninety (90) days of the Compliance Date, provide a written statement to the Commission, sworn under penalty of perjury, that:
 - 1. Describes all processes through which Defendant provided direct notice and sought to Obtain Verifiable Parental consent for any accounts covered by this Provision II;
 - 2. Identifies the total number of accounts for which (i) direct notice was provided; (ii) Defendant Obtained Verifiable Parental Consent; (iii) verifiable parental consent was affirmatively declined; and (iv) no response was provided;

3. Describes in detail any Personal Information Defendant retains in accordance with sub-Provisions II.C or II.D, the basis for such retention, and, as applicable, the specific government agency, law, regulation, or court order that requires such retention; and
4. Confirms that all Personal Information required to be Deleted by this Provision II has been Deleted.

Provided, however, that:

- C. Persistent Identifiers that Defendant is otherwise required to Delete by this Provision II need not be Deleted to the extent they are used solely for Support for the Internal Operations of the Website or Online Service; and
- D. Personal Information that Defendant is otherwise required to Delete by this Provision II may be retained, and may be disclosed, as requested by a government agency or required by law, regulation, or court order. Within thirty (30) days after the obligation to retain any such Personal Information has ended, Defendant shall Delete such Personal Information and provide an additional written statement to the Commission, sworn under penalty of perjury, confirming that Defendant has Deleted such Personal Information.

III. DEFAULT PRIVACY SETTINGS FOR CHILDREN AND TEENS

IT IS FURTHER ORDERED that, within thirty (30) days of the Compliance Date, Defendant, Defendant's officers, agents, employees, and attorneys, and all other Persons in active concert or participation with any of them, who receive actual notice of this

Order, in connection with any Covered Product or Service, are permanently restrained and enjoined from disclosing a Child's or Teen's Covered Information to, enabling a Child or Teen to disclose their Covered Information to, or enabling a Child or Teen to converse with or be party to conversations between or among, any other user of the Covered Product or Service, unless:

- A. For a Child user, the Child's Parent has provided, and not withdrawn, their Affirmative Express Consent through an easily-located Privacy Setting; and
- B. For a Teen user, the Teen (or the Teen's Parent) has provided, and not withdrawn, their Affirmative Express Consent through an easily-located Privacy Setting.
- C. Each Clear and Conspicuous disclosure required pursuant to sub-Provisions III.A. and III.B. must identify: (1) each type of Covered Information that will be disclosed; (2) each category of Persons to which each type of Covered Information will be disclosed; (3) each type of communication the Child or Teen will be able to make or receive; and (4) each category of Persons to, or from which, the Child or Teen will be able to make, or receive, each type of communication.
- D. For the purposes of this Provision III:
 - 1. Any user of any Covered Product or Service that is a Website or Online Service Directed to Children must be deemed a Child, provided, however, that for any such Covered Product or Service that does not target Children as its primary audience, Defendant may collect age

information from users before collecting any other Covered Information and treat each user accordingly unless and until Defendant has actual knowledge that the user is a Child or Teen;

2. Any user of any Covered Product or Service that is not a Website or Online Service Directed to Children may be treated as neither a Child nor a Teen unless and until Defendant has actual knowledge that the user is a Child or Teen; and
3. To the extent that a display name of a Child or Teen is disclosed in a multiuser game or other interactive multiuser experience to identify participating users, such display name will not be considered Covered Information. Provided, however, Defendant must describe: (i) in a direct notice to parents, any such disclosure of a Child's display name; and (ii) in Defendant's privacy policy, any such disclosure of a Child's or Teen's display name.

IV. MANDATED PRIVACY PROGRAM

IT IS FURTHER ORDERED that each Covered Business, in connection with the collection, maintenance, use, or disclosure of, or provision of access to, Covered Information, must, within thirty (30) days of the Compliance Date, establish and implement, and thereafter maintain, a comprehensive privacy program (the "Privacy Program") that protects the privacy of such Covered Information. To satisfy this requirement, each Covered Business must, at a minimum:

- A. Document in writing the content, implementation, and maintenance of the Privacy Program;
- B. Provide the written program and any evaluations thereof or updates thereto to its board of directors or governing body, or if no such board or equivalent governing body exists, to a senior officer responsible for the Privacy Program at least once every twelve (12) months;
- C. Designate a qualified employee or employees to coordinate and be responsible for the Privacy Program;
- D. Assess and document, at least once every twelve (12) months, internal and external risks to the privacy of Covered Information that could result in the unauthorized collection, maintenance, use, or disclosure of, or provision of access to, Covered Information;
- E. Design, implement, maintain, and document safeguards that control for the material internal and external risks the Covered Business identifies to the privacy of Covered Information identified in response to sub-Provision IV.D. Each safeguard must be based on the volume and sensitivity of the Covered Information that is at risk, and the likelihood that the risk could be realized and result in the unauthorized collection, maintenance, use, or disclosure of, or provision of access to, Covered Information. Such safeguards must include:
 - 1. Policies, procedures, and technical measures to comply with COPPA and the COPPA Rule;

2. Policies, procedures, and technical measures to comply with Provision III;
 3. Regular COPPA Rule training on at least an annual basis for all employees and contractors providing services to the Covered Business whose responsibilities include any of the following: (a) access to Covered Information; (b) Covered Products or Services design, engineering, or implementation; or (c) Privacy Settings design, engineering, or implementation; and
 4. Regular privacy training programs for all employees and contractors providing services to the Covered Business, updated on at least an annual basis to address any identified material internal or external risks and safeguards implemented pursuant to this Order;
- F. Assess, at least once every twelve (12) months, the sufficiency of any safeguards in place to address the internal and external risks to the privacy of Covered Information, and modify the Privacy Program as needed based on the results;
- G. Test and monitor the effectiveness of the safeguards at least once every twelve (12) months, and modify the Privacy Program as needed based on the results;
- H. Select and retain service providers capable of safeguarding Covered Information they access through or receive from the Covered Business, and contractually require service providers to implement and maintain

safeguards sufficient to address the internal and external risks to the privacy of Covered Information; and

- I. Evaluate and adjust the Privacy Program in light of any changes to the Covered Business's operations or business arrangements, new or more efficient technological or operational methods to control for the risks identified in sub-Provision IV.D of this Order, or any other circumstances that the Covered Business knows or has reason to know may have an impact on the effectiveness of the Privacy Program or any of its individual safeguards. At a minimum, the Covered Business must evaluate the Privacy Program at least once every twelve (12) months and modify the Privacy Program as needed based on the results.

V. PRIVACY ASSESSMENTS BY A THIRD PARTY

IT IS FURTHER ORDERED that, in connection with Provision IV of this Order titled Mandated Privacy Program, Defendant must obtain initial and biennial assessments ("Assessments"):

- A. The Assessment must be obtained from a qualified, objective, independent third-party professional ("Assessor"), who: (1) uses procedures and standards generally accepted in the profession; (2) conducts an independent review of the Privacy Program; (3) retains all documents relevant to each Assessment for five (5) years after completion of such Assessment; and (4) will provide such documents to the Commission within ten (10) days of receipt of a written request from a representative of the Commission. The

Assessor may not withhold any documents from the Commission on the basis of a claim of confidentiality, proprietary or trade secrets, work product protection, attorney-client privilege, statutory exemption, or any similar claim.

- B. For each Assessment, Defendant must provide the Associate Director for Enforcement for the Bureau of Consumer Protection at the Federal Trade Commission with the name, affiliation, and qualifications of the proposed Assessor, whom the Associate Director shall have the authority to approve in their sole discretion.
- C. The reporting period for the Assessments must cover: (1) the first 180 days after the Privacy Program has been put in place for the initial Assessment; and (2) each two-year period thereafter for twenty (20) years after the entry date of the Order for the biennial Assessments.
- D. Each Assessment must, for the entire assessment period:
 - 1. Determine whether each Covered Business has implemented and maintained the Privacy Program required by Provision IV of this Order, titled Mandated Privacy Program;
 - 2. Assess the effectiveness of each Covered Business's implementation and maintenance of sub-Provisions IV.A-I;
 - 3. Identify any gaps or weaknesses in, or instances of material noncompliance with, the Privacy Program;

4. Address the status of gaps or weaknesses in, or instances of material non-compliance with, the Privacy Program that were identified in any prior Assessment required by this Order; and
5. Identify specific evidence (including but not limited to documents reviewed, sampling and testing performed, and interviews conducted) examined to make such determinations, assessments, and identifications, and explain why the evidence that the Assessor examined is: (a) appropriate for assessing an enterprise of the Covered Business's size, complexity, and risk profile; and (b) sufficient to justify the Assessor's findings. No finding of any Assessment shall rely primarily on assertions or attestations by a Covered Business's management. The Assessment must be signed by the Assessor, state that the Assessor conducted an independent review of the Privacy Program and did not rely primarily on assertions or attestations by a Covered Business's management, and state the number of hours that each member of the assessment team worked on the Assessment. To the extent that a Covered Business adds, materially revises, or materially updates one or more safeguards required under Provision IV of this Order during an Assessment period, the Assessment must assess the effectiveness of the added, materially revised, or materially updated safeguard(s) for the time period in which it was in effect, and provide a

separate statement detailing the basis for each additional, materially revised, or materially updated safeguard.

- E. Each Assessment must be completed within sixty (60) days after the end of the reporting period to which the Assessment applies. Unless otherwise directed by a Commission representative in writing, Defendant must submit an unredacted copy of the initial Assessment and a proposed redacted copy suitable for public disclosure of the initial Assessment to the Commission within ten (10) days after the Assessment has been completed via email to DEbrief@ftc.gov or by overnight courier (not the U.S. Postal Service) to Associate Director for Enforcement, Bureau of Consumer Protection, Federal Trade Commission, 600 Pennsylvania Avenue NW, Washington, DC 20580. The subject line must begin: “United States v. Epic Games, Inc., FTC File No. 2223087.” Defendant must retain an unredacted copy of each subsequent biennial Assessment as well as a proposed redacted copy suitable for public disclosure of each subsequent biennial Assessment until the Order is terminated and provided to the Associate Director for Enforcement within ten (10) days of request. The initial Assessment and any subsequent biennial Assessment provided to the Commission must be marked, in the upper right-hand corner of each page, with the words “DPIP Assessment” in red lettering.

**VI. COOPERATION WITH THIRD-PARTY
PRIVACY ASSESSOR**

IT IS FURTHER ORDERED that Defendant, whether acting directly or indirectly, in connection with any Assessment required by Provision V of this Order titled Privacy Assessments by a Third Party, must:

- A. Provide or otherwise make available to the Assessor all information and material in its possession, custody, or control that is relevant to the Assessment for which there is no reasonable claim of privilege;
- B. Provide or otherwise make available to the Assessor information about each Covered Business's network(s), and all of each Covered Business's IT assets so that the Assessor can determine the scope of the Assessment, and visibility to those portions of the network(s) and IT assets deemed in scope; and
- C. Disclose all material facts to the Assessor, and not misrepresent in any manner, expressly or by implication, any fact material to the Assessor's:
 - (1) determination of whether Defendant has implemented and maintained the Privacy Program required by Provision IV of this Order, titled Mandated Privacy Program; (2) assessment of the effectiveness of the implementation and maintenance of sub-Provisions IV.A-I; or (3) identification of any gaps or weaknesses in, or instances of material noncompliance with, the Privacy Program.

VII. ANNUAL CERTIFICATION

IT IS FURTHER ORDERED that, one year after the Compliance Date, and each year thereafter for ten (10) years after the Compliance Date:

- A. Defendant must provide the Commission with a certification from the Principal Executive Officer that: (1) Defendant has established, implemented, and maintained the requirements of this Order; and (2) Defendant is not aware of any material noncompliance that has not been (a) corrected or (b) disclosed to the Commission. The certification must be based on the personal knowledge of the Principal Executive Officer or subject matter experts upon whom the Principal Executive Officer reasonably relies in making the certification.
- B. Defendant must provide the Commission with a certification from a senior officer of each Covered Business other than Defendant responsible for each such Covered Business's Privacy Program that: (1) each Covered Business other than Defendant has established, implemented, and maintained the requirements of this Order; and (2) each Covered Business other than Defendant is not aware of any material noncompliance that has not been (a) corrected or (b) disclosed to the Commission. The certification must be based on the personal knowledge of the senior corporate manager, senior officer, or subject matter experts upon whom the senior corporate manager or senior officer reasonably relies in making the certification.

- C. Unless otherwise directed by a Commission representative in writing, submit all annual certifications to the Commission pursuant to this Order via email to DEbrief@ftc.gov or by overnight courier (not the U.S. Postal Service) to the Associate Director for Enforcement, Bureau of Consumer Protection, Federal Trade Commission, 600 Pennsylvania Avenue NW, Washington, DC 20580. The subject line must begin: “United States v. Epic Games, Inc., FTC File No. 2223087.”

VIII. MONETARY JUDGMENT FOR CIVIL PENALTY

IT IS FURTHER ORDERED that:

- A. Judgment in the amount of two hundred seventy five million dollars (\$275,000,000) is entered in favor of Plaintiff against Defendant as a civil penalty.
- B. Defendant is ordered to pay to Plaintiff, by making payment to the Treasurer of the United States, two hundred seventy five million dollars (\$275,000,000), which, as Defendant stipulates, its undersigned counsel holds in escrow for no purpose other than payment to Plaintiff. Such payment must be made within seven (7) days of entry of this Order by electronic fund transfer in accordance with instructions previously provided by a representative of Plaintiff.
- C. Defendant relinquishes dominion and all legal and equitable right, title, and interest in all assets transferred pursuant to this Order and may not seek the return of any assets.

- D. The facts alleged in the Complaint will be taken as true, without further proof, in any subsequent civil litigation by or on behalf of the Commission in a proceeding to enforce its rights to any payment or monetary judgment pursuant to this Order.
- E. Defendant acknowledges that its Taxpayer Identification Numbers (Social Security Numbers or Employer Identification Numbers), which Defendant must submit to the Commission, may be used for collecting and reporting on any delinquent amount arising out of this Order, in accordance with 31 U.S.C. §7701.

IX. ORDER ACKNOWLEDGMENTS

IT IS FURTHER ORDERED that Defendant obtain acknowledgments of receipt of this Order:

- A. Defendant, within seven (7) days of entry of this Order, must submit to the Commission an acknowledgment of receipt of this Order sworn under penalty of perjury.
- B. For five (5) years after entry of this Order, Defendant must deliver a copy of this Order to: (1) all principals, officers, directors, and LLC managers and members; (2) all employees, agents, and representatives having managerial responsibilities for conduct related to the subject matter of the Order; and (3) any business entity resulting from any change in structure as set forth in the Provision titled Compliance Reporting. Delivery must occur within seven (7) days of entry of this Order for current personnel. For all

others, delivery must occur before they assume their responsibilities.

- C. From each individual or entity to which Defendant delivered a copy of this Order, Defendant must obtain, within thirty (30) days, a signed and dated acknowledgment of receipt of this Order.

X. COMPLIANCE REPORTING

IT IS FURTHER ORDERED that Defendant make timely submissions to the Commission:

- A. One (1) year after entry of this Order, Defendant must submit a compliance report, sworn under penalty of perjury:
1. Defendant must: (a) identify the primary physical, postal, and email address and telephone number, as designated points of contact, which representatives of the Commission and Plaintiff may use to communicate with Defendant; (b) identify all of Defendant's businesses by all of their names, telephone numbers, and physical, postal, email, and Internet addresses; (c) describe the activities of each business, including the goods and services offered, the means of advertising, marketing, and sales; (d) describe in detail whether and how Defendant is in compliance with each provision of this Order; and (e) provide a copy of each Order Acknowledgment obtained pursuant to this Order, unless previously submitted to the Commission.
- B. For ten (10) years after entry of this Order, Defendant must submit a compliance notice, sworn under penalty of perjury, within 14 days of any

change in the following:

1. Defendant must report any change in: (a) any designated point of contact; or (b) the structure of Defendant or any entity that Defendant has any ownership interest in or controls directly or indirectly that may affect compliance obligations arising under this Order, including: creation, merger, sale, or dissolution of the entity or any subsidiary, parent, or affiliate that engages in any acts or practices subject to this Order.
- C. Defendant must submit to the Commission notice of the filing of any bankruptcy petition, insolvency proceeding, or similar proceeding by or against Defendant within fourteen (14) days of its filing.
- D. Any submission to the Commission required by this Order to be sworn under penalty of perjury must be true and accurate and comply with 28 U.S.C. § 1746, such as by concluding: “I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct. Executed on: _____” and supplying the date, signatory’s full name, title (if applicable), and signature.

Unless otherwise directed by a Commission representative in writing, all submissions to the Commission pursuant to this Order must be emailed to DEbrief@ftc.gov or sent by overnight courier (not the U.S. Postal Service) to: Associate Director for Enforcement, Bureau of Consumer Protection, Federal Trade Commission,

600 Pennsylvania Avenue NW, Washington, DC 20580. The subject line must begin: “United States v. Epic Games, Inc., FTC File No. 2223087.”

XI. RECORDKEEPING

IT IS FURTHER ORDERED that Defendant must create certain records for ten (10) years after entry of the Order, and retain each such record for five (5) years.

Specifically, Defendant must create and retain the following records:

- A. Accounting records showing the revenues from all goods or services sold in connection to any Covered Product or Service;
- B. Personnel records showing, for each Person providing services in connection to any Covered Product or Service, whether as an employee or otherwise, that Person’s: name; addresses; telephone numbers; job title or position; dates of service; and (if applicable) the reason for termination;
- C. Copies or records of all consumer complaints and refund requests concerning the subject matter of the Order, whether received directly or through any domestic government regulatory authority; and
- D. All records necessary to demonstrate full compliance with each provision of this Order, including all submissions to the Commission.

XII. COMPLIANCE MONITORING

IT IS FURTHER ORDERED that, for the purpose of monitoring Defendant’s compliance with this Order:

- A. Within fourteen (14) days of receipt of a written request from a representative of the Commission or Plaintiff, Defendant must: submit

additional compliance reports or other requested information, which must be sworn under penalty of perjury; appear for depositions; and produce documents for inspection and copying. The Commission and Plaintiff are also authorized to obtain discovery, without further leave of court, using any of the procedures prescribed by Federal Rules of Civil Procedure 29, 30 (including telephonic depositions), 31, 33, 34, 36, 45, and 69, provided that Defendant, after attempting to resolve a dispute without court action and for good cause shown, may file a motion with this Court seeking an order for one or more of the protections set forth in Rule 26(c).

- B. For matters concerning this Order, the Commission and Plaintiff are authorized to communicate directly with Defendant. Defendant must permit representatives of the Commission and Plaintiff to interview any employee or other Person affiliated with Defendant who has agreed to such an interview. The Person interviewed may have counsel present.
- C. The Commission and Plaintiff may use all other lawful means, including posing, through its representatives as consumers, suppliers, or other individuals or entities, to Defendant or any individual or entity affiliated with Defendant, without the necessity of identification or prior notice. Nothing in this Order limits the Commission's lawful use of compulsory process, pursuant to Sections 9 and 20 of the FTC Act, 15 U.S.C. §§ 49, 57b-1.

XIII. RETENTION OF JURISDICTION

IT IS FURTHER ORDERED that this Court retains jurisdiction of this matter for purposes of construction, modification, and enforcement of this Order.

SO ORDERED this ____ day of _____, 202__.

UNITED STATES DISTRICT JUDGE

SO STIPULATED AND AGREED:

FOR PLAINTIFF:

THE UNITED STATES OF AMERICA

BRIAN M. BOYNTON

Principal Deputy Assistant Attorney General, Civil Division

ARUN G. RAO

Deputy Assistant Attorney General

AMANDA N. LISKAMM

Acting Director, Consumer Protection Branch

LISA K. HSIAO

Assistant Director, Consumer Protection Branch



Date: 12/16/22

Michael J. Wadden

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Trial Attorneys

Consumer Protection Branch

Civil Division

U.S. Department of Justice

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Washington, DC 20530

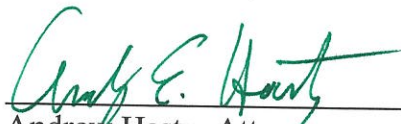
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FOR THE FEDERAL TRADE COMMISSION

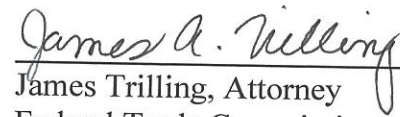
Benjamin Wiseman
Acting Associate Director
Division of Privacy and Identity Protection

Mark Eichorn
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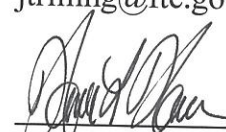
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FOR DEFENDANT:



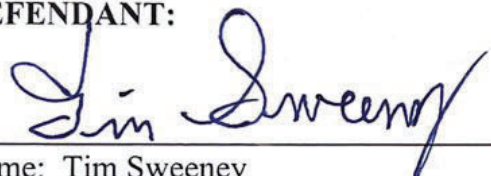
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Counsel for Epic Games, Inc.,

DEFENDANT:



Name: Tim Sweeney
Title: Chief Executive Officer
Epic Games, Inc.

Date: 12-2-2022

Appendix A

average firm-wide billing rate (partners and associates) in 2011 was \$403, the average partner rate was \$482, and the average associate rate was \$303.

The Commission believes it reasonable to assume that the workload among law firm partners and associates for COPPA compliance questions could be competently addressed and efficiently distributed among attorneys at varying levels of seniority, but would be weighted most heavily to more junior attorneys. Thus, assuming an apportionment of two-thirds of such work is done by associates, and one-third by partners, a weighted average tied to the average firm-wide associate and average firm-wide partner rates, respectively, in the *National Law Journal* 2011 survey would be about \$365 per hour. The Commission believes that this rate B which is very near the mean of TIA's stated range of purported hourly rates that its members typically pay to engage counsel for COPPA compliance questions B is an appropriate measure to calculate the cost of legal assistance for operators to comply with the final Rule amendments.³⁹⁶

TIA also states that the 2012 SNPRM estimate of \$42 per hour for technical support is too low, and that engaging expert technical personnel can, on average, involve hourly costs that range from \$72 to \$108.³⁹⁷ Similar to TIA's hours estimate, discussed above, the Commission believes that TIA's estimate may have been based on implementing requirements that, ultimately, the Commission has determined not to adopt. For example, technical personnel will not need to "ensure" the security procedures of third parties; operators that have been eligible to use email plus for parental consents will not be required to implement new systems to replace it. It is unclear whether TIA's estimate for technical support is based on the types of disclosure-related tasks that the final Rule amendments would actually require, other tasks that the final Rule amendments would not require, or non-disclosure tasks not covered by the PRA. Moreover, unlike its estimate for lawyer assistance, TIA's

estimates for technical labor are not accompanied by an adequate explanation of why estimates for technical support drawn from BLS statistics are not an appropriate basis for the FTC's PRA analysis. Accordingly, the Commission believes it is reasonable to retain the 2012 SNPRM estimate of \$42 per hour for technical assistance based on BLS data.

Thus, for the 180 new operators per year not previously accounted for under the FTC's currently cleared estimates, 10,800 cumulative disclosure hours would be composed of 9,000 hours of legal assistance and 1,800 hours of technical support. Applied to hourly rates of \$365 and \$42, respectively, associated labor costs for the 180 new operators potentially subject to the proposed amendments would be \$3,360,600 (*i.e.*, \$3,285,000 for legal support plus \$75,600 for technical support).

Similarly, for the estimated 2,910 existing operators covered by the final Rule amendments, 58,200 cumulative disclosure hours would consist of 48,500 hours of legal assistance and 9,700 hours for technical support. Applied at hourly rates of \$365 and \$42, respectively, associated labor costs would total \$18,109,900 (*i.e.*, \$17,702,500 for legal support plus \$407,400 for technical support). Cumulatively, estimated labor costs for new and existing operators subject to the final Rule amendments is \$21,470,500.

(2) Reporting

The Commission staff assumes that the tasks to prepare augmented safe harbor program applications occasioned by the final Rule amendments will be performed primarily by lawyers, at a mean labor rate of \$180 an hour.³⁹⁸ Thus, applied to an assumed industry total of 120 hours per year for this task, incremental associated yearly labor costs would total \$21,600.

³⁹⁸ Based on Commission staff's experience with previously approved safe harbor programs, staff anticipates that most of the legal tasks associated with safe harbor programs will be performed by in-house counsel. *Cf.* Toy Industry Association (comment 89, 2012 SNPRM), at 19 (regional BLS statistics for lawyer wages can support estimates of the level of in-house legal support likely to be required on an ongoing basis). Moreover, no comments were received in response to the February 9, 2011 and May 31, 2011 **Federal Register** notices (76 FR at 7211 and 76 FR at 31334, respectively, available at <http://www.gpo.gov/fdsys/pkg/FR-2011-02-09/pdf/2011-2904.pdf> and <http://www.gpo.gov/fdsys/pkg/FR-2011-05-31/pdf/2011-13357.pdf>), which assumed a labor rate of \$150 per hour for lawyers or similar professionals to prepare and submit a new safe harbor application. Nor was that challenged in the comments responding to the 2011 NPRM.

The Commission staff assumes periodic reports will be prepared by compliance officers, at a labor rate of \$28 per hour.³⁹⁹ Applied to an assumed industry total of 600 hours per year for this task, associated yearly labor costs would be \$16,800.

Cumulatively, labor costs for the above-noted reporting requirements total approximately \$38,400 per year.

G. Non-Labor/Capital Costs

Because both operators and safe harbor programs will already be equipped with the computer equipment and software necessary to comply with the Rule's new notice requirements, the final Rule amendments should not impose any additional capital or other non-labor costs.⁴⁰⁰

List of Subjects in 16 CFR Part 312

Children, Communications, Consumer protection, Electronic mail, Email, Internet, Online service, Privacy, Record retention, Safety, science and technology, Trade practices, Web site, Youth.

■ Accordingly, for the reasons stated above, the Federal Trade Commission revises part 312 of Title 16 of the Code of Federal Regulations to read as follows:

PART 312—CHILDREN'S ONLINE PRIVACY PROTECTION RULE

Sec.

- 312.1 Scope of regulations in this part.
- 312.2 Definitions.
- 312.3 Regulation of unfair or deceptive acts or practices in connection with the collection, use, and/or disclosure of personal information from and about children on the Internet.
- 312.4 Notice.
- 312.5 Parental consent.
- 312.6 Right of parent to review personal information provided by a child.
- 312.7 Prohibition against conditioning a child's participation on collection of personal information.

³⁹⁹ See Bureau of Labor Statistics National Compensation Survey: Occupational Earnings in the United States, 2010, at Table 3, available at <http://www.bls.gov/nchs/ocsc/sp/nctb1477.pdf>. This rate has not been contested.

⁴⁰⁰ NCTA commented that the Commission failed to consider costs "related to redeveloping child-directed Web sites" that operators would be "forced" to incur as a result of the proposed Rule amendments, including for "new equipment and software required by the expanded regulatory regime." NCTA (comment 113, 2011 NPRM), at 23. Similarly, TIA commented that the proposed Rule amendments would entail "increased monetary costs with respect to technology acquisition and implementation * * *." Toy Industry Association (comment 163, 2011 NPRM), at 17. These comments, however, do not specify projected costs or which Rule amendments would entail the asserted costs.

³⁹⁶ *Cf.* Civil Division of the United States Attorney's Office for the District of Columbia, United States Attorney's Office, District of Columbia, Laffey Matrix B 2003-2013, available at http://www.justice.gov/usao/dc/divisions/Laffey_Matrix_2003-2013.pdf (updated "Laffey Matrix" for calculating "reasonable" attorneys fees in suits in which fee shifting is authorized can be evidence of prevailing market rates for litigation counsel in the Washington, DC area; rates in table range from \$245 per hour for most junior associates to \$505 per hour for most senior partners).

³⁹⁷ Toy Industry Association (comment 89, 2012 SNPRM), at 18.

312.8 Confidentiality, security, and integrity of personal information collected from children.

312.9 Enforcement.

312.10 Data retention and deletion requirements.

312.11 Safe harbor programs.

312.12 Voluntary Commission Approval Processes.

312.13 Severability.

Authority: 15 U.S.C. 6501–6508.

§ 312.1 Scope of regulations in this part.

This part implements the Children's Online Privacy Protection Act of 1998, (15 U.S.C. 6501, *et seq.*) which prohibits unfair or deceptive acts or practices in connection with the collection, use, and/or disclosure of personal information from and about children on the Internet.

§ 312.2 Definitions.

Child means an individual under the age of 13.

Collects or collection means the gathering of any personal information from a child by any means, including but not limited to:

(1) Requesting, prompting, or encouraging a child to submit personal information online;

(2) Enabling a child to make personal information publicly available in identifiable form. An operator shall not be considered to have collected personal information under this paragraph if it takes reasonable measures to delete all or virtually all personal information from a child's postings before they are made public and also to delete such information from its records; or

(3) Passive tracking of a child online.

Commission means the Federal Trade Commission.

Delete means to remove personal information such that it is not maintained in retrievable form and cannot be retrieved in the normal course of business.

Disclose or disclosure means, with respect to personal information:

(1) The release of personal information collected by an operator from a child in identifiable form for any purpose, except where an operator provides such information to a person who provides support for the internal operations of the Web site or online service; and

(2) Making personal information collected by an operator from a child publicly available in identifiable form by any means, including but not limited to a public posting through the Internet, or through a personal home page or screen posted on a Web site or online service; a pen pal service; an electronic mail service; a message board; or a chat room.

Federal agency means an agency, as that term is defined in Section 551(1) of title 5, United States Code.

Internet means collectively the myriad of computer and telecommunications facilities, including equipment and operating software, which comprise the interconnected world-wide network of networks that employ the Transmission Control Protocol/Internet Protocol, or any predecessor or successor protocols to such protocol, to communicate information of all kinds by wire, radio, or other methods of transmission.

Obtaining verifiable consent means making any reasonable effort (taking into consideration available technology) to ensure that before personal information is collected from a child, a parent of the child:

(1) Receives notice of the operator's personal information collection, use, and disclosure practices; and

(2) Authorizes any collection, use, and/or disclosure of the personal information.

Online contact information means an email address or any other substantially similar identifier that permits direct contact with a person online, including but not limited to, an instant messaging user identifier, a voice over internet protocol (VOIP) identifier, or a video chat user identifier.

Operator means any person who operates a Web site located on the Internet or an online service and who collects or maintains personal information from or about the users of or visitors to such Web site or online service, or on whose behalf such information is collected or maintained, or offers products or services for sale through that Web site or online service, where such Web site or online service is operated for commercial purposes involving commerce among the several States or with 1 or more foreign nations; in any territory of the United States or in the District of Columbia, or between any such territory and another such territory or any State or foreign nation; or between the District of Columbia and any State, territory, or foreign nation. This definition does not include any nonprofit entity that would otherwise be exempt from coverage under Section 5 of the Federal Trade Commission Act (15 U.S.C. 45). Personal information is *collected or maintained on behalf of* an operator when:

(1) It is collected or maintained by an agent or service provider of the operator; or

(2) The operator benefits by allowing another person to collect personal information directly from users of such Web site or online service.

Parent includes a legal guardian.

Person means any individual, partnership, corporation, trust, estate, cooperative, association, or other entity.

Personal information means individually identifiable information about an individual collected online, including:

(1) A first and last name;

(2) A home or other physical address including street name and name of a city or town;

(3) Online contact information as defined in this section;

(4) A screen or user name where it functions in the same manner as online contact information, as defined in this section;

(5) A telephone number;

(6) A Social Security number;

(7) A persistent identifier that can be used to recognize a user over time and across different Web sites or online services. Such persistent identifier includes, but is not limited to, a customer number held in a cookie, an Internet Protocol (IP) address, a processor or device serial number, or unique device identifier;

(8) A photograph, video, or audio file where such file contains a child's image or voice;

(9) Geolocation information sufficient to identify street name and name of a city or town; or

(10) Information concerning the child or the parents of that child that the operator collects online from the child and combines with an identifier described in this definition.

Release of personal information means the sharing, selling, renting, or transfer of personal information to any third party.

Support for the internal operations of the Web site or online service means:

(1) Those activities necessary to:

(i) Maintain or analyze the functioning of the Web site or online service;

(ii) Perform network communications;

(iii) Authenticate users of, or personalize the content on, the Web site or online service;

(iv) Serve contextual advertising on the Web site or online service or cap the frequency of advertising;

(v) Protect the security or integrity of the user, Web site, or online service;

(vi) Ensure legal or regulatory compliance; or

(vii) Fulfill a request of a child as permitted by § 312.5(c)(3) and (4);

(2) So long as The information collected for the activities listed in paragraphs (1)(i)–(vii) of this definition is not used or disclosed to contact a specific individual, including through behavioral advertising, to amass a

profile on a specific individual, or for any other purpose.

Third party means any person who is not:

(1) An operator with respect to the collection or maintenance of personal information on the Web site or online service; or

(2) A person who provides support for the internal operations of the Web site or online service and who does not use or disclose information protected under this part for any other purpose.

Web site or online service directed to children means a commercial Web site or online service, or portion thereof, that is targeted to children.

(1) In determining whether a Web site or online service, or a portion thereof, is directed to children, the Commission will consider its subject matter, visual content, use of animated characters or child-oriented activities and incentives, music or other audio content, age of models, presence of child celebrities or celebrities who appeal to children, language or other characteristics of the Web site or online service, as well as whether advertising promoting or appearing on the Web site or online service is directed to children. The Commission will also consider competent and reliable empirical evidence regarding audience composition, and evidence regarding the intended audience.

(2) A Web site or online service shall be deemed directed to children when it has actual knowledge that it is collecting personal information directly from users of another Web site or online service directed to children.

(3) A Web site or online service that is directed to children under the criteria set forth in paragraph (1) of this definition, but that does not target children as its primary audience, shall not be deemed directed to children if it:

(i) Does not collect personal information from any visitor prior to collecting age information; and

(ii) Prevents the collection, use, or disclosure of personal information from visitors who identify themselves as under age 13 without first complying with the notice and parental consent provisions of this part.

(4) A Web site or online service shall not be deemed directed to children solely because it refers or links to a commercial Web site or online service directed to children by using information location tools, including a directory, index, reference, pointer, or hypertext link.

§ 312.3 Regulation of unfair or deceptive acts or practices in connection with the collection, use, and/or disclosure of personal information from and about children on the Internet.

General requirements. It shall be unlawful for any operator of a Web site or online service directed to children, or any operator that has actual knowledge that it is collecting or maintaining personal information from a child, to collect personal information from a child in a manner that violates the regulations prescribed under this part. Generally, under this part, an operator must:

(a) Provide notice on the Web site or online service of what information it collects from children, how it uses such information, and its disclosure practices for such information (§ 312.4(b));

(b) Obtain verifiable parental consent prior to any collection, use, and/or disclosure of personal information from children (§ 312.5);

(c) Provide a reasonable means for a parent to review the personal information collected from a child and to refuse to permit its further use or maintenance (§ 312.6);

(d) Not condition a child's participation in a game, the offering of a prize, or another activity on the child disclosing more personal information than is reasonably necessary to participate in such activity (§ 312.7); and

(e) Establish and maintain reasonable procedures to protect the confidentiality, security, and integrity of personal information collected from children (§ 312.8).

§ 312.4 Notice.

(a) *General principles of notice.* It shall be the obligation of the operator to provide notice and obtain verifiable parental consent prior to collecting, using, or disclosing personal information from children. Such notice must be clearly and understandably written, complete, and must contain no unrelated, confusing, or contradictory materials.

(b) *Direct notice to the parent.* An operator must make reasonable efforts, taking into account available technology, to ensure that a parent of a child receives direct notice of the operator's practices with regard to the collection, use, or disclosure of personal information from children, including notice of any material change in the collection, use, or disclosure practices to which the parent has previously consented.

(c) *Content of the direct notice to the parent—(1) Content of the direct notice to the parent under § 312.5(c)(1) (Notice*

to Obtain Parent's Affirmative Consent to the Collection, Use, or Disclosure of a Child's Personal Information). This direct notice shall set forth:

(i) That the operator has collected the parent's online contact information from the child, and, if such is the case, the name of the child or the parent, in order to obtain the parent's consent;

(ii) That the parent's consent is required for the collection, use, or disclosure of such information, and that the operator will not collect, use, or disclose any personal information from the child if the parent does not provide such consent;

(iii) The additional items of personal information the operator intends to collect from the child, or the potential opportunities for the disclosure of personal information, should the parent provide consent;

(iv) A hyperlink to the operator's online notice of its information practices required under paragraph (d) of this section;

(v) The means by which the parent can provide verifiable consent to the collection, use, and disclosure of the information; and

(vi) That if the parent does not provide consent within a reasonable time from the date the direct notice was sent, the operator will delete the parent's online contact information from its records.

(2) *Content of the direct notice to the parent under § 312.5(c)(2) (Voluntary Notice to Parent of a Child's Online Activities Not Involving the Collection, Use or Disclosure of Personal Information).* Where an operator chooses to notify a parent of a child's participation in a Web site or online service, and where such site or service does not collect any personal information other than the parent's online contact information, the direct notice shall set forth:

(i) That the operator has collected the parent's online contact information from the child in order to provide notice to, and subsequently update the parent about, a child's participation in a Web site or online service that does not otherwise collect, use, or disclose children's personal information;

(ii) That the parent's online contact information will not be used or disclosed for any other purpose;

(iii) That the parent may refuse to permit the child's participation in the Web site or online service and may require the deletion of the parent's online contact information, and how the parent can do so; and

(iv) A hyperlink to the operator's online notice of its information

practices required under paragraph (d) of this section.

(3) *Content of the direct notice to the parent under § 312.5(c)(4) (Notice to a Parent of Operator's Intent to Communicate with the Child Multiple Times).* This direct notice shall set forth:

(i) That the operator has collected the child's online contact information from the child in order to provide multiple online communications to the child;

(ii) That the operator has collected the parent's online contact information from the child in order to notify the parent that the child has registered to receive multiple online communications from the operator;

(iii) That the online contact information collected from the child will not be used for any other purpose, disclosed, or combined with any other information collected from the child;

(iv) That the parent may refuse to permit further contact with the child and require the deletion of the parent's and child's online contact information, and how the parent can do so;

(v) That if the parent fails to respond to this direct notice, the operator may use the online contact information collected from the child for the purpose stated in the direct notice; and

(vi) A hyperlink to the operator's online notice of its information practices required under paragraph (d) of this section.

(4) *Content of the direct notice to the parent required under § 312.5(c)(5) (Notice to a Parent In Order to Protect a Child's Safety).* This direct notice shall set forth:

(i) That the operator has collected the name and the online contact information of the child and the parent in order to protect the safety of a child;

(ii) That the information will not be used or disclosed for any purpose unrelated to the child's safety;

(iii) That the parent may refuse to permit the use, and require the deletion, of the information collected, and how the parent can do so;

(iv) That if the parent fails to respond to this direct notice, the operator may use the information for the purpose stated in the direct notice; and

(v) A hyperlink to the operator's online notice of its information practices required under paragraph (d) of this section.

(d) *Notice on the Web site or online service.* In addition to the direct notice to the parent, an operator must post a prominent and clearly labeled link to an online notice of its information practices with regard to children on the home or landing page or screen of its Web site or online service, and, at each area of the Web site or online service

where personal information is collected from children. The link must be in close proximity to the requests for information in each such area. An operator of a general audience Web site or online service that has a separate children's area must post a link to a notice of its information practices with regard to children on the home or landing page or screen of the children's area. To be complete, the online notice of the Web site or online service's information practices must state the following:

(1) The name, address, telephone number, and email address of all operators collecting or maintaining personal information from children through the Web site or online service. *Provided that:* The operators of a Web site or online service may list the name, address, phone number, and email address of one operator who will respond to all inquiries from parents concerning the operators' privacy policies and use of children's information, as long as the names of all the operators collecting or maintaining personal information from children through the Web site or online service are also listed in the notice;

(2) A description of what information the operator collects from children, including whether the Web site or online service enables a child to make personal information publicly available; how the operator uses such information; and, the operator's disclosure practices for such information; and

(3) That the parent can review or have deleted the child's personal information, and refuse to permit further collection or use of the child's information, and state the procedures for doing so.

§ 312.5 Parental consent.

(a) *General requirements.* (1) An operator is required to obtain verifiable parental consent before any collection, use, or disclosure of personal information from children, including consent to any material change in the collection, use, or disclosure practices to which the parent has previously consented.

(2) An operator must give the parent the option to consent to the collection and use of the child's personal information without consenting to disclosure of his or her personal information to third parties.

(b) *Methods for verifiable parental consent.* (1) An operator must make reasonable efforts to obtain verifiable parental consent, taking into consideration available technology. Any method to obtain verifiable parental consent must be reasonably calculated,

in light of available technology, to ensure that the person providing consent is the child's parent. (2) Existing methods to obtain verifiable parental consent that satisfy the requirements of this paragraph include:

(i) Providing a consent form to be signed by the parent and returned to the operator by postal mail, facsimile, or electronic scan;

(ii) Requiring a parent, in connection with a monetary transaction, to use a credit card, debit card, or other online payment system that provides notification of each discrete transaction to the primary account holder;

(iii) Having a parent call a toll-free telephone number staffed by trained personnel;

(iv) Having a parent connect to trained personnel via video-conference;

(v) Verifying a parent's identity by checking a form of government-issued identification against databases of such information, where the parent's identification is deleted by the operator from its records promptly after such verification is complete; or

(vi) *Provided that*, an operator that does not "disclose" (as defined by § 312.2) children's personal information, may use an email coupled with additional steps to provide assurances that the person providing the consent is the parent. Such additional steps include: Sending a confirmatory email to the parent following receipt of consent, or obtaining a postal address or telephone number from the parent and confirming the parent's consent by letter or telephone call. An operator that uses this method must provide notice that the parent can revoke any consent given in response to the earlier email.

(3) *Safe harbor approval of parental consent methods.* A safe harbor program approved by the Commission under § 312.11 may approve its member operators' use of a parental consent method not currently enumerated in paragraph (b)(2) of this section where the safe harbor program determines that such parental consent method meets the requirements of paragraph (b)(1) of this section.

(c) *Exceptions to prior parental consent.* Verifiable parental consent is required prior to any collection, use, or disclosure of personal information from a child *except* as set forth in this paragraph:

(1) Where the sole purpose of collecting the name or online contact information of the parent or child is to provide notice and obtain parental consent under § 312.4(c)(1). If the operator has not obtained parental consent after a reasonable time from the date of the information collection, the

operator must delete such information from its records;

(2) Where the purpose of collecting a parent's online contact information is to provide voluntary notice to, and subsequently update the parent about, the child's participation in a Web site or online service that does not otherwise collect, use, or disclose children's personal information. In such cases, the parent's online contact information may not be used or disclosed for any other purpose. In such cases, the operator must make reasonable efforts, taking into consideration available technology, to ensure that the parent receives notice as described in § 312.4(c)(2);

(3) Where the sole purpose of collecting online contact information from a child is to respond directly on a one-time basis to a specific request from the child, and where such information is not used to re-contact the child or for any other purpose, is not disclosed, and is deleted by the operator from its records promptly after responding to the child's request;

(4) Where the purpose of collecting a child's and a parent's online contact information is to respond directly more than once to the child's specific request, and where such information is not used for any other purpose, disclosed, or combined with any other information collected from the child. In such cases, the operator must make reasonable efforts, taking into consideration available technology, to ensure that the parent receives notice as described in § 312.4(c)(3). An operator will not be deemed to have made reasonable efforts to ensure that a parent receives notice where the notice to the parent was unable to be delivered;

(5) Where the purpose of collecting a child's and a parent's name and online contact information, is to protect the safety of a child, and where such information is not used or disclosed for any purpose unrelated to the child's safety. In such cases, the operator must make reasonable efforts, taking into consideration available technology, to provide a parent with notice as described in § 312.4(c)(4);

(6) Where the purpose of collecting a child's name and online contact information is to:

(i) Protect the security or integrity of its Web site or online service;

(ii) Take precautions against liability;

(iii) Respond to judicial process; or

(iv) To the extent permitted under other provisions of law, to provide information to law enforcement agencies or for an investigation on a matter related to public safety; and where such information is not be used for any other purpose;

(7) Where an operator collects a persistent identifier and no other personal information and such identifier is used for the sole purpose of providing support for the internal operations of the Web site or online service. In such case, there also shall be no obligation to provide notice under § 312.4; or

(8) Where an operator covered under paragraph (2) of the definition of *Web site or online service directed to children* in § 312.2 collects a persistent identifier and no other personal information from a user who affirmatively interacts with the operator and whose previous registration with that operator indicates that such user is not a child. In such case, there also shall be no obligation to provide notice under § 312.4.

§ 312.6 Right of parent to review personal information provided by a child.

(a) Upon request of a parent whose child has provided personal information to a Web site or online service, the operator of that Web site or online service is required to provide to that parent the following:

(1) A description of the specific types or categories of personal information collected from children by the operator, such as name, address, telephone number, email address, hobbies, and extracurricular activities;

(2) The opportunity at any time to refuse to permit the operator's further use or future online collection of personal information from that child, and to direct the operator to delete the child's personal information; and

(3) Notwithstanding any other provision of law, a means of reviewing any personal information collected from the child. The means employed by the operator to carry out this provision must:

(i) Ensure that the requestor is a parent of that child, taking into account available technology; and

(ii) Not be unduly burdensome to the parent.

(b) Neither an operator nor the operator's agent shall be held liable under any Federal or State law for any disclosure made in good faith and following reasonable procedures in responding to a request for disclosure of personal information under this section.

(c) Subject to the limitations set forth in § 312.7, an operator may terminate any service provided to a child whose parent has refused, under paragraph (a)(2) of this section, to permit the operator's further use or collection of personal information from his or her child or has directed the operator to delete the child's personal information.

§ 312.7 Prohibition against conditioning a child's participation on collection of personal information.

An operator is prohibited from conditioning a child's participation in a game, the offering of a prize, or another activity on the child's disclosing more personal information than is reasonably necessary to participate in such activity.

§ 312.8 Confidentiality, security, and integrity of personal information collected from children.

The operator must establish and maintain reasonable procedures to protect the confidentiality, security, and integrity of personal information collected from children. The operator must also take reasonable steps to release children's personal information only to service providers and third parties who are capable of maintaining the confidentiality, security and integrity of such information, and who provide assurances that they will maintain the information in such a manner.

§ 312.9 Enforcement.

Subject to sections 6503 and 6505 of the Children's Online Privacy Protection Act of 1998, a violation of a regulation prescribed under section 6502 (a) of this Act shall be treated as a violation of a rule defining an unfair or deceptive act or practice prescribed under section 18(a)(1)(B) of the Federal Trade Commission Act (15 U.S.C. 57a(a)(1)(B)).

§ 312.10 Data retention and deletion requirements.

An operator of a Web site or online service shall retain personal information collected online from a child for only as long as is reasonably necessary to fulfill the purpose for which the information was collected. The operator must delete such information using reasonable measures to protect against unauthorized access to, or use of, the information in connection with its deletion.

§ 312.11 Safe harbor programs.

(a) *In general.* Industry groups or other persons may apply to the Commission for approval of self-regulatory program guidelines ("safe harbor programs"). The application shall be filed with the Commission's Office of the Secretary. The Commission will publish in the **Federal Register** a document seeking public comment on the application. The Commission shall issue a written determination within 180 days of the filing of the application.

(b) *Criteria for approval of self-regulatory program guidelines.* Proposed safe harbor programs must demonstrate

that they meet the following performance standards:

(1) Program requirements that ensure operators subject to the self-regulatory program guidelines ("subject operators") provide substantially the same or greater protections for children as those contained in §§ 312.2 through 312.8, and 312.10.

(2) An effective, mandatory mechanism for the independent assessment of subject operators' compliance with the self-regulatory program guidelines. At a minimum, this mechanism must include a comprehensive review by the safe harbor program, to be conducted not less than annually, of each subject operator's information policies, practices, and representations. The assessment mechanism required under this paragraph can be provided by an independent enforcement program, such as a seal program.

(3) Disciplinary actions for subject operators' non-compliance with self-regulatory program guidelines. This performance standard may be satisfied by:

(i) Mandatory, public reporting of any action taken against subject operators by the industry group issuing the self-regulatory guidelines;

(ii) Consumer redress;

(iii) Voluntary payments to the United States Treasury in connection with an industry-directed program for violators of the self-regulatory guidelines;

(iv) Referral to the Commission of operators who engage in a pattern or practice of violating the self-regulatory guidelines; or

(v) Any other equally effective action.

(c) *Request for Commission approval of self-regulatory program guidelines.* A proposed safe harbor program's request for approval shall be accompanied by the following:

(1) A detailed explanation of the applicant's business model, and the technological capabilities and mechanisms that will be used for initial and continuing assessment of subject operators' fitness for membership in the safe harbor program;

(2) A copy of the full text of the guidelines for which approval is sought and any accompanying commentary;

(3) A comparison of each provision of §§ 312.2 through 312.8, and 312.10 with the corresponding provisions of the guidelines; and

(4) A statement explaining:

(i) How the self-regulatory program guidelines, including the applicable assessment mechanisms, meet the requirements of this part; and

(ii) How the assessment mechanisms and compliance consequences required

under paragraphs (b)(2) and (b)(3) provide effective enforcement of the requirements of this part.

(d) *Reporting and recordkeeping requirements.* Approved safe harbor programs shall:

(1) By July 1, 2014, and annually thereafter, submit a report to the Commission containing, at a minimum, an aggregated summary of the results of the independent assessments conducted under paragraph (b)(2) of this section, a description of any disciplinary action taken against any subject operator under paragraph (b)(3) of this section, and a description of any approvals of member operators' use of a parental consent mechanism, pursuant to § 312.5(b)(4);

(2) Promptly respond to Commission requests for additional information; and

(3) Maintain for a period not less than three years, and upon request make available to the Commission for inspection and copying:

(i) Consumer complaints alleging violations of the guidelines by subject operators;

(ii) Records of disciplinary actions taken against subject operators; and

(iii) Results of the independent assessments of subject operators' compliance required under paragraph (b)(2) of this section.

(e) *Post-approval modifications to self-regulatory program guidelines.* Approved safe harbor programs must submit proposed changes to their guidelines for review and approval by the Commission in the manner required for initial approval of guidelines under paragraph (c)(2) of this section. The statement required under paragraph (c)(4) of this section must describe how the proposed changes affect existing provisions of the guidelines.

(f) *Revocation of approval of self-regulatory program guidelines.* The Commission reserves the right to revoke any approval granted under this section if at any time it determines that the approved self-regulatory program guidelines or their implementation do not meet the requirements of this part. Safe harbor programs that were approved prior to the publication of the Final Rule amendments must, by March 1, 2013, submit proposed modifications to their guidelines that would bring them into compliance with such amendments, or their approval shall be revoked.

(g) *Operators' participation in a safe harbor program.* An operator will be deemed to be in compliance with the requirements of §§ 312.2 through 312.8, and 312.10 if that operator complies with Commission-approved safe harbor program guidelines. In considering whether to initiate an investigation or

bring an enforcement action against a subject operator for violations of this part, the Commission will take into account the history of the subject operator's participation in the safe harbor program, whether the subject operator has taken action to remedy such non-compliance, and whether the operator's non-compliance resulted in any one of the disciplinary actions set forth in paragraph (b)(3).

§ 312.12 Voluntary Commission Approval Processes.

(a) *Parental consent methods.* An interested party may file a written request for Commission approval of parental consent methods not currently enumerated in § 312.5(b). To be considered for approval, a party must provide a detailed description of the proposed parental consent methods, together with an analysis of how the methods meet § 312.5(b)(1). The request shall be filed with the Commission's Office of the Secretary. The Commission will publish in the **Federal Register** a document seeking public comment on the request. The Commission shall issue a written determination within 120 days of the filing of the request; and

(b) *Support for internal operations of the Web site or online service.* An interested party may file a written request for Commission approval of additional activities to be included within the definition of support for internal operations. To be considered for approval, a party must provide a detailed justification why such activities should be deemed support for internal operations, and an analysis of their potential effects on children's online privacy. The request shall be filed with the Commission's Office of the Secretary. The Commission will publish in the **Federal Register** a document seeking public comment on the request. The Commission shall issue a written determination within 120 days of the filing of the request.

§ 312.13 Severability.

The provisions of this part are separate and severable from one another. If any provision is stayed or determined to be invalid, it is the Commission's intention that the remaining provisions shall continue in effect.

By direction of the Commission, Commissioner Rosch abstaining, and Commissioner Ohlhausen dissenting.

Donald S. Clark,
Secretary.

Dissenting Statement of Commissioner Maureen K. Ohlhausen

I voted against adopting the amendments to the Children's Online Privacy Protection Act (COPPA) Rule because I believe a core provision of the amendments exceeds the scope of the authority granted us by Congress in COPPA, the statute that underlies and authorizes the Rule.⁴⁰¹ Before I explain my concerns, I wish to commend the Commission staff for their careful consideration of the multitude of issues raised by the numerous comments in this proceeding. Much of the language of the amendments is designed to preserve flexibility for the industry while striving to protect children's privacy, a goal I support strongly. The final proposed amendments largely strike the right balance between protecting children's privacy online and avoiding undue burdens on providers of children's online content and services. The staff's great expertise in the area of children's privacy and deep understanding of the values at stake in this matter have been invaluable in my consideration of these important issues.

In COPPA Congress defined who is an operator and thereby set the outer boundary for the statute's and the COPPA Rule's reach.⁴⁰² It is undisputed that COPPA places obligations on operators of Web sites or online services directed to children or operators with actual knowledge that they are collecting personal information from

children. The statute provides, "It is unlawful for an operator of a Web site or online service directed to children, or any operator that has actual knowledge that it is collecting personal information from a child, to collect personal information from a child in a manner that violates the regulations prescribed [by the FTC]." ⁴⁰³

The Statement of Basis and Purpose for the amendments (SBP) discusses concerns that the current COPPA Rule may not cover child-directed Web sites or services that do not themselves collect children's personal information but may incorporate third-party plug-ins that collect such information ⁴⁰⁴ for the plug-ins' use but do not collect or maintain the information for, or share it with, the child-directed site or service. To address these concerns, the amendments add a new proviso to the definition of operator in the COPPA Rule: "Personal information is collected or maintained on behalf of an operator when: (a) it is collected or maintained by an agent or service provider of the operator; or (b) the operator benefits by allowing another person to collect personal information directly from users of such Web site or online service." ⁴⁰⁵

The proposed amendments construe the term "on whose behalf such information is collected and maintained" to reach child-directed Web sites or services that merely derive from a third-party plug-in some kind of benefit, which may well be unrelated to the collection and use of children's

information (e.g., content, functionality, or advertising revenue). I find that this proviso—which would extend COPPA obligations to entities that do not collect personal information from children or have access to or control of such information collected by a third-party does not comport with the plain meaning of the statutory definition of an operator in COPPA, which covers only entities "on whose behalf such information is collected and maintained." ⁴⁰⁶ In other words, I do not believe that the fact that a child-directed site or online service receives any kind of benefit from using a plug-in is equivalent to the collection of personal information by the third-party plug-in on behalf of the child-directed site or online service.

As the Supreme Court has directed, an agency "must give effect to the unambiguously expressed intent of Congress." ⁴⁰⁷ Thus, regardless of the policy justifications offered, I cannot support expanding the definition of the term "operator" beyond the statutory parameters set by Congress in COPPA.

I therefore respectfully dissent.

[FR Doc. 2012–31341 Filed 1–16–13; 8:45 am]

BILLING CODE 6750–01–P

⁴⁰⁶ This expanded definition of operator reverses the Commission's previous conclusion that the appropriate test for determining an entity's status as an operator is to "look at the entity's relationship to the data collected," using factors such as "who owns and/or controls the information, who pays for its collection and maintenance, the pre-existing contractual relationships regarding collection and maintenance of the information, and the role of the Web site or online service in collecting and/or maintaining the information (i.e., whether the site participates in collection or is merely a conduit through which the information flows to another entity.)" Children's Online Privacy Protection Rule 64 FR 59888, 59893, 59891 (Nov. 3, 1999) (final rule).

⁴⁰⁷ *Chevron v. Natural Resources Defense Council, Inc.*, 467 U.S. 837, 842–43 (1984) ("When a court reviews an agency's construction of the statute which it administers, it is confronted with two questions. First, always, is the question whether Congress has directly spoken to the precise question at issue. If the intent of Congress is clear, that is the end of the matter; for the court, as well as the agency, must give effect to the unambiguously expressed intent of Congress.")

⁴⁰¹ 15 U.S.C. 6501–6506.

⁴⁰² COPPA, 15 U.S.C. 6501(2), defines the term "operator" as "any person who operates a Web site located on the Internet or an online service and who collects or maintains personal information from or about users of or visitors to such Web site or online service, or on whose behalf such information is collected and maintained * * *". As stated in the Statement of Basis and Purpose for the original COPPA Rule, "The definition of 'operator' is of central importance because it determines who is covered by the Act and the Rule." Children's Online Privacy Protection Rule 64 FR 59888, 59891 (Nov. 3, 1999) (final rule).

⁴⁰³ 15 U.S.C. 6502(a)(1).

⁴⁰⁴ If the third-party plug-ins are child-directed or have actual knowledge that they are collecting children's personal information they are already expressly covered by the COPPA statute. Thus, as the SBP notes, a behavioral advertising network that targets children under the age of 13 is already deemed an operator. The amendment must therefore be aimed at reaching third-party plug-ins that are either not child-directed or do not have actual knowledge that they are collecting children's personal information, which raises a question about what harm this amendment will address. For example, it appears that this same type of harm could occur through general audience Web sites and online services collecting and using visitors' personal information without knowing whether some of the data is children's personal information, which is a practice that COPPA and the amendments do not prohibit.

⁴⁰⁵ 16 CFR 312.2 (Definitions).

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF NORTH CAROLINA
WESTERN DIVISION
No. 5:22-CV-00518

UNITED STATES OF AMERICA,)	
)	
Plaintiff,)	
)	
v.)	COMPLAINT FOR PERMANENT
)	INJUNCTION, CIVIL PENALTIES, AND
EPIC GAMES, INC.,)	OTHER RELIEF
)	
Defendant.)	

Plaintiff, the United States of America, acting upon notification and on behalf of the Federal Trade Commission (“Commission” or “FTC”), for its Complaint alleges:

1. Plaintiff brings this action under Sections 5(a)(1), 5(m)(1)(A), 13(b), 16(a)(1), and 19 of the Federal Trade Commission Act (“FTC Act”), 15 U.S.C. §§ 45(a)(1), 45(m)(1)(A), 53(b), 56(a)(1), 57b, and Sections 1303(c) and 1306(d) of the Children’s Online Privacy Protection Act of 1998 (“COPPA”), 15 U.S.C. §§ 6502(c), 6505(d), to obtain monetary civil penalties, a permanent injunction, and other relief for Defendant’s violations of Section 5 of the FTC Act and the Children’s Online Privacy Protection Rule (“Rule” or “COPPA Rule”), 16 C.F.R. pt. 312.

SUMMARY OF CASE

2. Epic Games, Inc. (“Epic,” “Epic Games,” or “Defendant”) is the developer and distributor of the hit online video game “Fortnite.” Through Fortnite, Epic matches

children and teens with strangers around the world in interactive gameplay, encourages real-time communications by featuring on-by-default voice and text chat features, and publicly broadcasts players' account names. Even though Fortnite is directed to children, and even when Epic had actual knowledge that Fortnite users were children, Epic failed to comply with the COPPA Rule's parental notice, consent, review, and deletion requirements. Although Epic has changed its practices over time, those changes have not cured the violations.

3. Ultimately, Epic's matchmaking children and teens with strangers while broadcasting players' account names and imposing live on-by-default voice and text communications has caused substantial injury that is neither offset by countervailing benefits nor reasonably avoidable by consumers. Children and teens have been bullied, threatened, and harassed within Fortnite, including sexually. Children and teens have also been exposed to dangerous and psychologically traumatizing issues, such as suicide and self-harm, through Fortnite. And the few relevant privacy and parental controls Epic has introduced over time have not meaningfully alleviated these harms or empowered players to avoid them.

JURISDICTION AND VENUE

4. This Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331, 1337(a), and 1345.

5. Venue is proper in this District under 28 U.S.C. § 1391(b)(1), (b)(2), (c)(2), and (d), and 15 U.S.C. § 53(b).

SECTION 5 OF THE FTC ACT

6. Section 5(a) of the FTC Act, 15 U.S.C. § 45(a), prohibits “unfair or deceptive acts or practices in or affecting commerce.”

CHILDREN’S ONLINE PRIVACY PROTECTION RULE

7. Congress enacted COPPA in 1998 to protect the safety and privacy of children online by prohibiting the unauthorized or unnecessary collection of children’s personal information online by operators of Internet websites and online services. COPPA directed the Commission to promulgate a rule implementing COPPA. The Commission promulgated the COPPA Rule on November 3, 1999, under Section 1303(b) of COPPA, 15 U.S.C. § 6502(b), and Section 553 of the Administrative Procedure Act, 5 U.S.C. § 553. The Rule went into effect on April 21, 2000. The Commission promulgated revisions to the Rule that went into effect on July 1, 2013. Pursuant to Section 1303(c) of COPPA, 15 U.S.C. § 6502(c), and Section 18(d)(3) of the FTC Act, 15 U.S.C. § 57(a)(d)(3), a violation of the Rule constitutes an unfair or deceptive act or practice in or affecting commerce, in violation of Section 5(a) of the FTC Act, 15 U.S.C. § 45(a).

8. The Rule applies to any operator of a commercial website or online service directed to children under 13 years of age that collects, uses, and/or discloses personal information from children, and to any operator of a commercial website or online service that has actual knowledge that it collects, uses, and/or discloses personal information from children. The Rule requires an operator to meet specific requirements prior to

collecting, using, or disclosing children's personal information online, including but not limited to:

- a) Posting a privacy policy on its website or online service providing clear, understandable, and complete notice of its information practices, including what information the operator collects from children online, how it uses such information, its disclosure practices for such information, and other specific disclosures set forth in the Rule;
- b) Providing clear, understandable, and complete notice of its information practices, including specific disclosures, directly to parents;
- c) Obtaining verifiable parental consent prior to collecting, using, and/or disclosing personal information from children;
- d) Providing a reasonable means for parents to review personal information collected from children online, at a parent's request; and
- e) Deleting personal information collected from children online, at a parent's request.

DEFINITIONS

9. For purposes of this Complaint, the terms "child," "collects," "collection," "disclose," "disclosure," "Internet," "obtaining verifiable parental consent," "online contact information," "operator," "parent," "personal information," and "Web site or online service directed to children," are defined as those terms are defined in Section 312.2 of the COPPA Rule, 16 C.F.R. § 312.2.

DEFENDANTS

10. Defendant Epic Games, Inc. is a Maryland corporation with its principal place of business at 620 Crossroads Blvd., Cary, North Carolina 27518. Epic transacts or has transacted business in this District and throughout the United States. At all times relevant to this Complaint, acting alone or in concert with others, Epic has advertised, marketed, distributed, or sold the video game Fortnite and in-game Fortnite content to consumers throughout the United States.

COMMERCE

11. At all times relevant to this Complaint, Epic has maintained a substantial course of trade in or affecting commerce, as “commerce” is defined in Section 4 of the FTC Act, 15 U.S.C. § 44.

EPIC’S BUSINESS ACTIVITIES

About Epic and Fortnite

12. Epic is the developer of Fortnite, a hit online video game available to players on multiple consoles, including the Sony PlayStation, Microsoft Xbox, and Nintendo Switch, mobile devices with Android or iOS operating systems, and personal computers with Windows or MacOS operating systems. Launched in July 2017, Fortnite quickly caught the attention of young consumers—teens and children under age 13—in the United States and abroad and, today, has more than 400 million players.

13. Available in different modes, Fortnite is generally free to download and play (although one mode, called “Save the World,” costs money). Epic has earned

billions of dollars in revenue through Fortnite, primarily by selling Fortnite players in-game digital content like costumes (called “cosmetics” or “skins”) and dance moves (called “emotes”) for their avatars, and through licensing partnerships with companies selling Fortnite-branded merchandise.

Epic Collects Personal Information From Fortnite Players

14. To play Fortnite using a personal computer or mobile device, players must first create an Epic Games account. Prior to September 2019, anyone could create an Epic Games account by providing Epic Games with their first name, last name, and email address, and choosing a name (called a “display name”) for their account. This remains the process for players located outside the United States and Europe. For players in the United States or Europe, however, Epic began requiring birthdate information as part of the account creation process on September 11, 2019 (for U.S. players), September 2, 2021 (for U.K. players), and November 30, 2021 (for European players outside the U.K.).

15. To play Fortnite on a PlayStation, Xbox, or Switch console, players can choose to create an Epic Games account, register their console to an already-created Epic Games account, or access Fortnite using what Epic refers to as a “nameless” account. If a player chooses this last option to play Fortnite on their PlayStation, Xbox, or Switch console, Epic creates a “nameless” Epic Games account for that player on Epic’s backend automatically—generating a unique account ID for the player, associating that unique account ID to the player’s PlayStation, Xbox, or Switch console, and collecting the

player's PlayStation, Xbox, or Switch account name for use as the player's display name within Fortnite.

16. Regardless of the console or type of account a player uses, several social features are enabled within Fortnite by default that convert the game into a platform for connecting with other players. Among other things, these social features allow players to find and friend each other (by display name), play matches together, exchange personal information, and converse with each other in real time by voice and text. On the backend, Epic collects and uses various unique device IDs, account IDs, and other persistent identifiers to keep track of players' progress, purchases, settings, and friends lists, among other player-specific information.

Fortnite Is Directed to Children Under 13

17. Considering the factors set forth in the COPPA Rule, including the game's subject matter, use of animation, child-oriented activities and language, and music content, evidence of intended audience, and empirical evidence about the game's player demographics, Fortnite is directed to children under age 13.

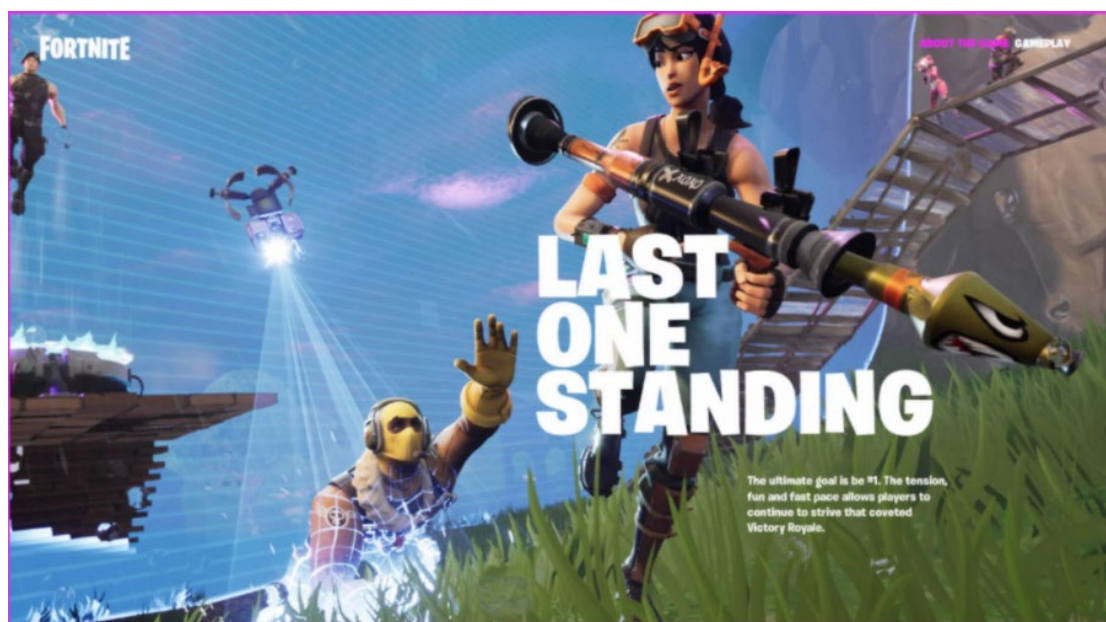
Fortnite's Gameplay, Visual Content, and Features are Directed to Children

18. Revolving around a "shooter-survival" style of gameplay, Fortnite's various game modes include "build-and-create" mechanics like those in other games popular with children, and feature other elements that appeal to children, like cartoony graphics and colorful animation. For example, in Fortnite's popular "Battle Royale" mode, players' colorful avatars enter the game by hang gliding to various places in a

virtual world (e.g., “Loot Lake,” “Tilted Towers,” “Retail Row”) after jumping from a whimsical flying blue school bus, called the “Battle Bus.”



19. Akin to digital laser tag, there is no blood or gore in Fortnite, and players are “eliminated” from the game (not “killed”).



20. Prominent in Fortnite gameplay is an emphasis on building “forts” and other creations—offering children a digital playground to explore. As Epic noted when announcing the game’s release in 2017, the “soul of Fortnite” derives from the common childhood experience of fort-building—“whether it was blankets and couch cushions, or building a fort in the woods by your house, you and your friends could spend Saturday afternoons hiding out, or repelling hordes of imaginary creatures”—and the game incorporates “sculpted ‘puzzle pieces’ to create interesting play spaces to explore.”¹

Fortnite Theming Decisions Ensure Content Appeals to Children

21. Epic strives to create a “Living room safe, but barely” environment using content that appeals to children when making Fortnite theming decisions, including potential music, celebrity, and brand partnerships. In so doing, Epic Games employees have explained:

- “We want to be living room safe, but barely. We don’t want your mom to love the game – just accept it compared to alternatives”
- “Agree with the idea that, generally, all theming should be relevant to a 8-14 y.o., as a litmus test”
- “We are NOT adult: experience must allow for parental comfort for ages 10+”

Based on these guiding principles, Fortnite has promoted and hosted live in-game concerts featuring celebrities popular with children, such as Marshmello, Travis Scott, Ariana Grande, and BTS.

¹ See, e.g., Darren Sugg, *Build, Explore, Craft, and Fight on July 25*, EpicGames.com (June 8, 2017), <https://www.epicgames.com/fortnite/en-US/news/build-explore-craft-and-fight-on-july-25?lang=en-US>.

***Epic Has Made Millions in Royalties Selling Official
Fortnite Toys, Halloween Costumes, and Youth Apparel***

22. Further evidencing the game’s intended audience, Epic has made millions in royalties by partnering with companies to sell officially licensed Fortnite merchandise for children. Within a year of Fortnite’s public release, Epic retained a licensing agent and launched a consumer products program to give players official Fortnite-branded merchandise.

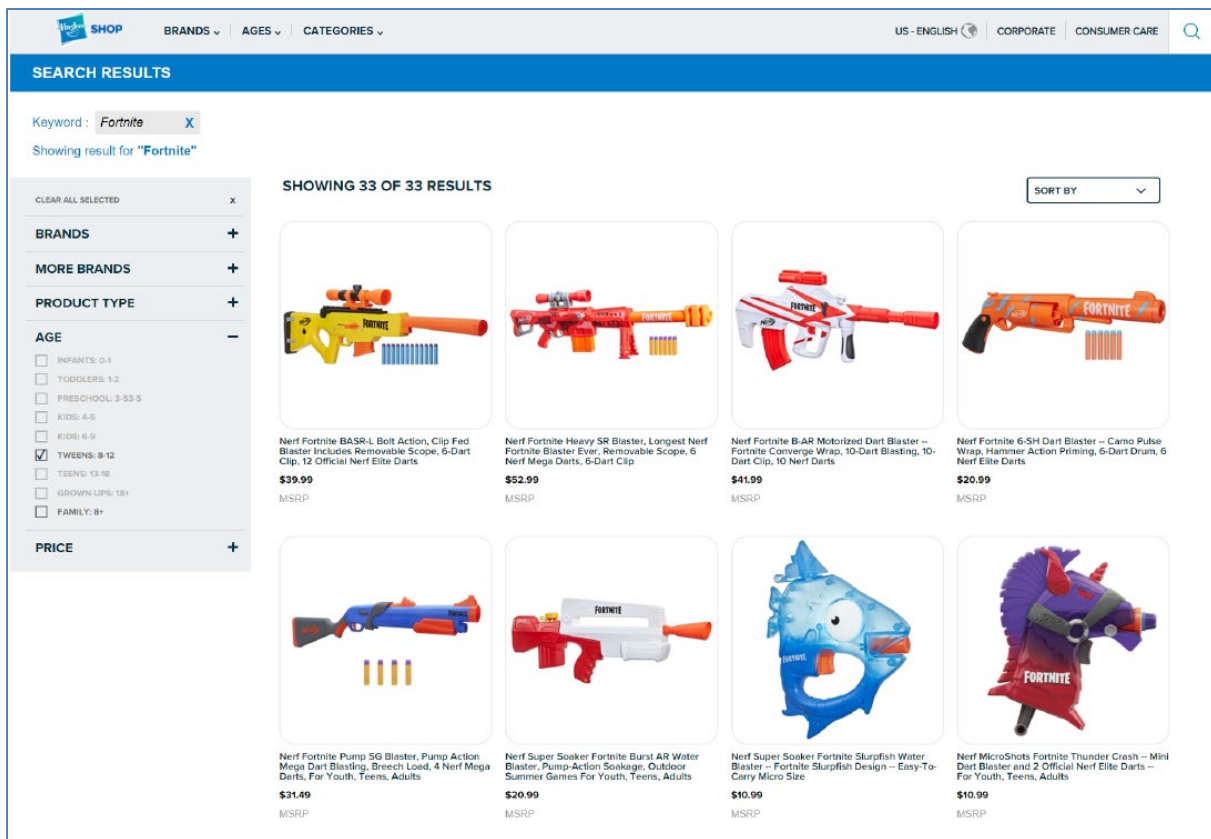
23. Acknowledging that “Youth and Kids are obsessed with Fortnite” and “want to show their allegiance to their favorite pastime,” Epic’s agent developed a licensing plan with a “core” component that targeted “Kids” and “Youth Universes,” and worked closely with Epic to broker partnerships between Epic and other companies to create Fortnite-branded costumes, toys, books, youth-sized apparel, and “back to school” merchandise (e.g., backpacks, pencil cases, etc.). And while Epic’s licensing agent has helped source and manage these merchandising partnerships, Epic carefully scrutinizes all potential licensees, sets the terms governing each partnership, and approves every Fortnite-branded product that gets produced—including the product’s design and packaging, and related advertising and marketing plans.

24. In its first consumer products deal, Epic partnered with Spirit Halloween to offer officially licensed Fortnite Halloween costumes. Available in children’s sizes, these costumes have been very popular with kids and spawned articles with headlines like

“Excited Kids Are Baffling Adults With Their *Fortnite* Halloween Fervor.”² Indeed, Spirit Halloween sold hundreds of thousands of child-sized *Fortnite* costumes between 2018 and 2020, which account for more than half of all *Fortnite* costumes sold by Spirit Halloween during those years.

25. In another early consumer products deal, Epic partnered with Hasbro to offer players *Fortnite*-branded Nerf guns, Super Soaker water guns, and other popular kids’ toys. Consistent with the core demographic for Hasbro’s Nerf products, the “*Fortnite X Nerf*” product line launched in early 2019 using a “#FortniteIRL [In Real Life]” tagline with paid advertisements in media channels targeting “6-11 year old boys.” Today, through its partnership with Epic, Hasbro offers more than 40 different officially licensed *Fortnite* toys on its website, including three Super Soaker products for “Kids: 6-9,” and 33 different Nerf, Super Soaker, and other toys for “Twins: 8-12” (as reflected in the screenshot below).

² Gita Jackson, *Excited Kids Are Baffling Adults With Their Fortnite Halloween Fervor*, Kotaku.com (Oct. 26, 2018, 3:30 pm), <https://kotaku.com/excited-kids-are-baffling-adults-with-their-fortnite-ha-1830029419>. See also Cady Lang, *The Most Popular Halloween Costume This Year Is So 2018*, Time.com (Oct. 19, 2018, 11:02 am), <https://time.com/5429462/best-halloween-costumes-2018/>; Chloe Wilt, *The 10 Most Popular Halloween Costume Ideas This Year, According to Google*, Money.com (Oct. 11, 2019), <https://money.com/top-halloween-costumes-2019-deals/>; Kyler Alvord, *Google’s Most-Searched Halloween Costumes of 2020 Could Be Better*, Thrillist.com (Oct. 29, 2020), <https://www.thrillist.com/news/nation/googles-most-searched-halloween-costumes-2020>.



26. In addition to Hasbro, Epic has partnered with other companies like Jazwares and Moose Toys to produce official Fortnite action figures, playsets, and other toys. As with the Epic-Hasbro partnership, toys from the Epic-Jazwares and Epic-Moose Toys partnerships were marketed to and for kids, including through television commercials targeting those aged 12-17 that aired on the Cartoon Network, Nickelodeon, and Nicktoons (Epic-Jazwares), and video advertisements on YouTube and Twitch intended to reach “Fortnite fans 8-12” and “Fortnite fans 13-21” (Epic-Moose Toys). And toys from all three partnerships were marketed through seasonal toy catalogs from retailers like Amazon, Target, and Walmart (including the 2019 Walmart toy catalog excerpted below).



27. Notably, a toy from the Epic-Jazwares partnership—the Fortnite Llama Loot Pinata—tied with Lego’s Harry Potter products to win the “Toys / Games / Novelties for Ages 0-12” category at the 2019 International Licensing Awards. As the head of Epic’s consumer products program explained internally, Epic won the “Newcomer” award that year after Fortnite or Fortnite-branded products won first place awards in five categories—despite being “up against some heavy hitters like Harry Potter, Jurassic World, and Lego.”

28. By the first half of 2020, Epic’s consumer products program had generated more than \$1 billion in gross sales of Fortnite-branded merchandise, bringing more than \$130 million in gross royalties to Epic and its licensing agent. Most of this success was

driven by the popularity of Epic’s official Fortnite toys, which accounted for nearly 70% (~\$650 million) of all Fortnite-branded merchandise sales, and more than 60% (~\$80 million) of the royalties from such sales, through the first quarter of 2020.

Many Children Play Fortnite, and Many Fortnite Players Are Children

29. Not surprisingly, empirical evidence shows that many children play Fortnite, which is disproportionately popular with “tweens.” For example, publicly available survey results from a 2019 report show that 53% of U.S. children aged 10-12 played Fortnite weekly, compared to 33% of U.S. teens aged 13-17, and 19% of the U.S. population aged 18-24.³ And Epic, which had previously contracted with the company that conducted this survey (to conduct a different survey in connection with Fortnite), received pre-publication copies of the survey results along with a private briefing by the researchers who conducted the survey.

30. Results from Epic’s own player surveys are consistent with this data. While Epic avoided collecting Fortnite players’ precise ages (until it instituted the limited age gating described below in Paragraphs 54 through 58), Epic has consistently asked about players’ living situation and occupation through player surveys—and used the results as a proxy for players’ age demographics. The results show that most Fortnite players (i.e., approximately 70%) live at home with their parents or guardians, and, of those who live with their parents or guardians, most (i.e., approximately 80%) identify as

³ National Research Group, *Fortnite: The New Social Media?* (June 4, 2019), available at <https://www.nationalresearchgroup.com/news/fortnite-the-new-social-media>.

students. And when soliciting potential brand partnerships for Fortnite, Epic has used social media data to emphasize Fortnite's popularity among young gamers—noting that a third of Fortnite players, based on social media data, are teens aged 13-17 (i.e., the youngest age demographic available in the social media data, which cuts off at age 13).

Epic Knows that Children Play Fortnite

31. Epic knows that children play Fortnite. Epic employees and player support agents review and respond to thousands of player-related requests, reports, and complaints that come in each day, many of which identify specific Fortnite players as being children under 13.

32. Epic and its employees also regularly monitor, read, and circulate news articles and social media posts chronicling Fortnite's popularity among children, and sometimes incorporate kids' ideas directly into the game. For example, the concept behind a popular "cosmetic" (i.e., outfit for players' in-game avatars) in Fortnite, called "Tender Defender," originated in the mind of an eight-year-old Fortnite player whose father had shared his son's idea on the social media site Reddit.com, where it caught the attention of Epic's Fortnite development team.

33. Epic, too, has sent Fortnite "swag"—i.e., Fortnite-branded merchandise—intended for children under 13, including in response to celebrities' swag requests for their "Fortnite obsessed" children. And to help Epic evaluate potential new features, the former Game Director for Fortnite would bring his son, who was under 13 years old, to participate in internal company playtests of Fortnite.

34. Further, when Epic lobbied Microsoft and Sony to support cross-console gameplay, allowing, e.g., Xbox Fortnite users to play with PlayStation Fortnite users, Epic stressed the feature's impact on kids, noting for example that "many Fortnite players are kids" and that cross-console gameplay would "bring together current and potential gamers in real-world social groups: college dorms, high school classes, even kids . . ."

35. Epic's records include other acknowledgements, too. In numerous internal communications, Epic employees have reported being inundated with Fortnite questions and requests during in-person conversations with players under 13, watching kids perform Fortnite dances in public, and receiving notes from teachers about Fortnite's popularity with their middle and elementary school students. In other ordinary course business communications, Epic employees have noted that "a large portion of our player base" consists of "underage kids," acknowledged Fortnite's "high penetration among tweens/teens," flagged "that Fortnite is enjoyed by a very young audience at home and abroad," and described putting on Fortnite "dance cam," "makeup booth (for kids)," and other events at public gaming conferences (where most attendees were "very young")—including events where "[t]he idea was that any kid or teenager playing could feel like a pro."

Fortnite's Unfair Default Settings Have Harmed Children and Teens

36. Predictably, Epic has caused substantial harm by matching children and teens with strangers in interactive gameplay while publicly broadcasting players' display

names and imposing real-time communications through on-by-default voice and text chat.

37. Epic has known about this harm and nevertheless allowed it to persist. Shortly after Fortnite's launch, Epic's then Director of User Experience ("UX") emailed Epic leadership in August 2017 seeking "basic toxicity prevention" mechanisms—noting that "surely a lot of kids" were currently playing the game, and imploring Epic to "avoid voice chat or have it opt-in at the very least." To no avail. Voice chat remained on by default, including in Fortnite's Battle Royale mode when Epic enabled voice chat for that mode in October 2017. While Epic contemporaneously added a toggle on a settings page enabling those who happened to find it to switch voice chat off, the feature remained on as part of Fortnite's default configuration for all players.

38. Within two weeks of Epic's October 2017 decision to enable voice chat in Battle Royale, a high-profile gamer verbally harassed a young player while publicly streaming to an audience of thousands of viewers. As an Epic Games employee acknowledged: ". . . we honestly should have seen this coming or [at least] expected this with an on-by-default voice chat system. Situations like this are bound to happen . . ." But Epic again declined to modify its on-by-default voice chat system (or implement any other changes) to stop subjecting kids to such abuse within Fortnite.

39. Eight months later, in June 2018, Epic's UX research team analyzed the parental and privacy controls offered by a wide range of other games and game platforms, and presented the results of their assessment to Epic executives and other

employees. Epic's UX team reiterated their recommendation to move to an opt-in voice chat configuration for Fortnite, noting that most players did not use the feature when playing with strangers, which presented "a risk in terms of negative social behavior," and acknowledging "[f]rom social/media stories we have seen both 'Fortnite is positive' and 'child charity warns parents about predators in Fortnite' . . ." Epic leadership praised the "very well-researched and thoughtful" work, but the UX team "got no traction" around opt-in voice chat. Epic continued to reject the UX team's recommendation.

40. All the while, kids have been bullied, threatened, and harassed, including sexually, through Fortnite. Numerous news stories chronicle reports of predators blackmailing, extorting, or coercing children and teens they met through Fortnite into sharing explicit images or meeting offline for sexual activity. Such issues are also the subject of numerous player support tickets submitted to Epic by distressed parents and players.

41. In addition, Epic's Fortnite practices have exposed kids to dangerous and psychologically traumatizing issues, such as suicide and self-harm. For example, in a May 2018 email to Epic's customer support leads, one employee noted that Epic's player support tickets included "834 cases created in the last year that contain the words 'kill myself' and 485 containing the word 'suicide,'" including "cases such as toxicity reports from players who were told to kill themselves by others." As one parent explained in an email to Epic, "[t]his morning, while on Fortnite, my 9 year old son had a 'friend'

(someone he doesn't know in real life, but has been playing with for months) tell him that he was going to kill himself tonight. It shook him to the core.”

42. As reflected in internal exchanges between Epic employees, these harms are not outweighed by countervailing benefits, nor are they reasonably avoidable by consumers. Shortly before the UX team's unsuccessful push to convince leadership to change Fortnite's default settings in June 2018, an Epic employee who had helped create Fortnite emailed Epic's PR manager and Epic's Creative Director:

I think you both know this, but our voice and chat controls are total crap as far as kids and parents go. It's not a good thing. It was on my list a year ago, but never bubbled to the surface. This is one of those things that the company generally has weak will to pursue, but really impacts our overall system and perception. I've made a coppa [sic] compliant game and we are far from it, but we don't need to be that far . . .

To which Epic's PR manager responded:

100% agree here. Communication-wise, we are staying out of the debate, even though Fortnite is right in the middle of it. We'd come out looking way better if we offered the proper tools across the board here. I agree the best response is doing the right thing, and not debating it . . .

The employee then forwarded the exchange to Epic's lead UX researcher, who replied “I would really like to see even the small step of on first load asking if people want voice on or off. Even hardcore games like Monster Hunter have done this.” And when articulating the UX team's position to Epic executives a week later, Epic's lead UX researcher noted a good opt-in system yielded only upside: it would align with players' reported preferences (“when playing with strangers the majority [of Fortnite players] are not typically using it to talk or listen to them”), preserve the feature's utility (“[t]here is

no doubt that voice is strongly valued by folks when talking to people they know, and by a significant minority who like to use it to talk to strangers . . . A good opt-in system should maintain this”), and reduce toxicity (“[f]or example when Riot moved to opt-in text chat they saw the same volume of chat usage, but reduced toxicity as those who want to chat were able to communicate and those that did not were not exposed”).

43. As noted in Paragraph 37, Epic did introduce a toggle switch allowing Fortnite players to turn voice chat off, but the control was buried on a hard-to-find settings page. As one Fortnite programmer lamented:

So when I was at my brothers house, and was watching my 10 yr old nephew play. I’m like, hey, why is there no sound on the TV? And he’s like, we turn off the volume because you can hear people talking. People related to me by blood were no sh[**] muting the TV instead of looking for a way to disable voice chat. Not a proud day . . . The settings are not a land most folks venture to, certainly not technophobic parents . . .

When this message was forwarded to Epic’s lead UX researcher, he responded with exasperation: “Sigh. Can we just suggest popping up a dialog asking people if they want it on or not?”

Epic’s Changes Have Not Cured the Law Violations

44. Over time, Epic has introduced a few changes to Fortnite in weak-willed attempts to provide players and their parents with some privacy and parental controls, and

comply with COPPA’s parental notice, consent, review, and deletion requirements. But these overdue efforts have not cured the law violations.

Epic Has Consistently Resisted, Deprioritized, and Delayed Privacy and Parental Controls

45. Fortnite launched with no parental controls and minimal privacy settings. Initially, the only such options consisted of a few settings allowing players to “mute,” “block,” or “kick” (i.e., remove from shared gameplay activities)⁴ individual problematic players they encountered, or narrow the set of players who could join them in collaborative gameplay (i.e., by changing their “Party Privacy” setting from “public” to “friends of friends,” “friends,” or “private”). Neither players nor their parents could prevent a player’s display name from being publicly broadcast or disable voice and text chat (except by using parental controls and voice chat settings when playing Fortnite on gaming consoles that provide such controls and settings).

46. Shortly after launch, Epic introduced the toggle switch discussed above, allowing Fortnite players to disable voice chat, but did not inform players of the setting’s availability and placed the control in the middle of a detailed settings page. Seven months later, in May 2018, Epic introduced a setting called “Streamer Mode” that, when enabled, hid a player’s display name and the display names of those the player

⁴ These settings enable one to ignore incoming voice and text chat messages from a particular Fortnite player (via the “Mute Player” setting); defriend a particular player, ignore any subsequent friend requests from that player, and stop the blocked player from participating in voice or text chats (via the “Block Player” setting); and remove a particular player from collaborative gameplay (via the “Kick Player” setting).

encountered during gameplay. After surveying players and finding that many who enabled this control were seeking to avoid harassment—and were not actual “streamers” (i.e., players who publicly live-streamed their gameplay)—Epic split the feature into an “Anonymous Mode” setting (which hides a player’s display name during gameplay, when enabled) and “Hide Other Player Names” setting (which hides other players’ display names during gameplay, when enabled) in January 2019. In between, Epic added settings allowing Fortnite players to hide their display name from appearing in global game statistic leaderboards (in September 2018) and disable friend requests from other players (in January 2019).

47. In June 2019, nearly two years after Fortnite’s launch, Epic finally introduced parental controls to the game. Starting on that date, parents could set a PIN code that must be entered to adjust various privacy settings—i.e., Auto Decline Friend Requests, Hide Other Player Names, Anonymous Mode, and Voice Chat.⁵ Of course, to enable parental controls, parents would first need to know they existed, have access to their child’s or teen’s Fortnite account, and know where to find the controls.

For More Than Two Years, Epic Took No Steps to Seek Parental Consent Before Collecting Children’s Personal Information or Explain How the Company Handled It

48. From July 2017, when Fortnite launched, until September 2019, Epic took no steps to (a) provide a direct notice to parents describing Epic’s practices regarding the

⁵ Two months later, in August 2019, Epic began offering a setting to disable text chat within Fortnite and included this setting within the scope of its parental controls initiative.

collection, use, and disclosure of children's personal information; (b) explain what information Epic collected from children through Fortnite; or (c) seek verifiable parental consent ("VPC") from parents before collecting their children's personal information through Fortnite.

49. Instead, Epic included one paragraph on the second-to-last page of its global privacy policy disavowing that it directed any services to children or intentionally collected any personal information from such players, and asking parents to contact Epic if they believed Epic had received personal information from their child:

Epic does not direct its websites, games, game engines, or applications to children (usually considered to be under the age of 13, depending on the country where you reside). We also do not intentionally collect personal information from children through our websites, games, game engines, or applications. If you are the parent or guardian of a child and you believe that we have inadvertently received personal information about that child, please contact us as described in the How to Contact Us section of this policy and we will delete the information from our records.

50. When parents contacted Epic to review or delete the information Epic collected from their child through Fortnite, or delete their child's Epic Games account, and those parents did not have access to their child's Fortnite account, Epic made those parents jump through extraordinary hoops to "verify" their parental status. For example, Epic required some parents to provide all IP addresses used by their child to play Fortnite, the date the child's Epic Games account was created, an invoice ID for an Epic Games purchase, the locations (city, state/province) where purchases were made, the last 4 digits of the first payment card used on the child's Epic Games account, the date of their child's last Fortnite login, their child's original Epic Games account display name,

and the names of any PlayStation, Xbox, or Switch consoles connected to their child's Epic Games account. Where parents were able to provide such information, Epic sometimes required them to provide even more information before Epic would agree to process the parent's review or deletion request—like the name of a cosmetic item their child purchased more than 30 days ago and a copy of the parent's passport, identification card, or recent rent or mortgage statement.

51. Even when Epic obtained actual knowledge that particular Fortnite players were under 13, Epic took no steps to comply with COPPA. Indeed, Epic went to great lengths to pretend it never obtained actual knowledge at all.

52. In March 2018, Microsoft personnel told Epic that Epic would have to block Xbox accounts belonging to children under 13 from participating in cross-console gameplay through Fortnite. In particular, Microsoft wanted Epic to use an existing Xbox mechanism (an API called the UserAgeGroup) to check whether a given Xbox player was using an "Adult," "Child," "Teen," or "Unknown" Xbox account, and block any Xbox players using "Child" accounts (defined as accounts belonging to players under age 13) from using Fortnite's cross-console gameplay feature. In other words, Microsoft wanted Epic to use Microsoft's API to determine which Xbox accounts belonged to children under age 13 and block those accounts from participating in Fortnite's cross-console gameplay feature.

53. Although Epic initially resisted, the company ultimately acquiesced and began blocking Xbox accounts identified via the UserAgeGroup API as belonging to a

player under 13 from participating in cross-console gameplay within Fortnite. But Epic did not take any other steps to limit those players' communications with third parties, seek VPC for them, provide their parents with any notices explaining how Epic handled children's personal information, or otherwise comply with COPPA. Instead, as reflected in company records, Epic pretended they had no idea these players were children for any purpose other than determining whether they could participate in cross-console gameplay.

Epic's Dilatory COPPA Measures Fail to Comply With The Law

54. Epic eventually began to change its approach to COPPA compliance. On September 11, 2019—long after Epic obtained empirical evidence pointing to large numbers of Fortnite players under 13, received actual knowledge that many particular players were under 13, and profited from Fortnite-branded merchandise clearly directed to children—Epic introduced an age gate to the account creation process for prospective Fortnite players attempting to create an Epic Games account on the Epic Games website from an internet connection with a U.S. IP address. For any such prospective player who self-identified as being 12 years old or younger, Epic would collect a parent's email address from the player and send an email to the player's parent describing how Epic handled children's personal information and asking the parent to complete a VPC process—such as using a credit card to make a small refundable charge.

55. But this initiative had no effect on the default configurations of Fortnite players' privacy controls—which continue to enable the public broadcast of players' display names and direct communication between players, regardless of a player's age.

56. Nor did this initiative apply to those seeking to play Fortnite using new nameless accounts (i.e., accounts generated by Epic for PlayStation, Xbox, or Switch users, as described in Paragraph 15), or those creating Epic Games accounts from internet connections with an IP address outside the U.S.

57. Nor did Epic's September 11, 2019, changes apply to the hundreds of millions of Fortnite players who already had accounts, with a few limited exceptions. In the weeks before implementation, Epic employees searched Fortnite player support tickets to find those with indicia that a U.S. player may be under the age of 13. These efforts surfaced 36,000 such tickets, which Epic associated with 15,300 identifiable Fortnite players. Regardless of whether a ticket specifically identified a particular player as being under 13, or merely suggested that a player might be under 13, Epic logged all 15,300 players out of their accounts and asked them to provide their birthdate the next time the player attempted to log in—emailing parents a direct notice and asking them to complete a VPC process only if the player then self-identified as being under age 13.

58. Contemporaneously, Epic began instructing player support agents to flag accounts belonging to U.S. Fortnite players associated with new player support tickets in which players self-identified (or were identified by others) as being 12 years old or younger. Beginning on September 11, 2019, Epic started logging out any accounts with

such a flag and requiring the player to pass Epic's age gate the next time the player attempted to log in, with Epic requesting a parent's email address, sending a direct notice, and asking the parent to complete a VPC process only if the player then self-identified as being under 13.

59. Around the same time, Epic began changing how it handled emails identifying specific Fortnite players as being age 12 or younger. Previously, Epic did not take any steps to ensure the company sought VPC for such players or provided such players' parents with any notices describing how Epic handled their children's personal information. But starting in late 2019, Epic began forwarding these types of emails to player support agents, who try to determine whether the underlying player is based in the U.S. If so, and if the player has not already been subjected to Epic's age gate, the player is logged out and required to provide their birthdate the next time the player attempts to log in. Only if the player then self-identifies as being twelve or younger does Epic send their parent a direct notice and seek VPC.

60. Based on the facts and violations of law alleged in this Complaint, the FTC has reason to believe that Defendant is violating or is about to violate laws enforced by the Commission.

VIOLATIONS OF THE COPPA RULE AND FTC ACT

**Count I
COPPA Rule**

61. As described in Paragraphs 10 through 16 above, Defendant is an “operator” subject to the COPPA Rule.

62. In numerous instances, in connection with the acts and practices described above, Defendant collected, used, and disclosed personal information from children younger than age 13 in violation of the Rule by:

- a) Failing to provide notice on its website or online service of the information it collects online from children, how it uses such information, and its disclosure practices, among other required content, in violation of Section 312.4(d) of the Rule, 16 C.F.R. § 312.4(d);
- b) Failing to provide direct notice to parents of the information it collects online from children, how it uses such information, and its disclosure practices for such information, among other required content, in violation of Section 312.4(b) of the Rule, 16 C.F.R. § 312.4(b);
- c) Failing to obtain consent from parents before any collection or use of personal information from children, in violation of Section 312.5(a)(1) of the Rule, 16 C.F.R. § 312.5(a)(1);

d) Failing to provide, at the request of parents, a means of reviewing any personal information collected from children, in violation of Section 312.6(a)(3) of the Rule, 16 C.F.R. § 312.6(a)(3); and

e) Failing to delete, at the request of parents, personal information collected from children, in violation of Section 312.6(a)(2) of the Rule, 16 C.F.R. § 312.6(a)(2).

63. Pursuant to Section 1303(c) of COPPA, 15 U.S.C. § 6502(c), and Section 18(d)(3) of the FTC Act, 15 U.S.C. § 57a(d)(3), a violation of the Rule constitutes an unfair or deceptive act or practice in or affecting commerce, in violation of Section 5(a) of the FTC Act, 15 U.S.C. § 45(a).

64. Defendant violated the Rule as described above with the knowledge required by Section 5(m)(1)(A) of the FTC Act, 15 U.S.C. § 45(m)(1)(A).

65. Each collection, use, or disclosure of a child's personal information in which Defendant violated the Rule in one or more of the ways described above constitutes a separate violation for which Plaintiff seeks monetary civil penalties.

66. Section 5(m)(1)(A) of the FTC Act, 15 U.S.C. § 45(m)(1)(A), as modified by Section 4 of the Federal Civil Penalties Inflation Adjustment Act of 1990, 28 U.S.C. § 2461; the Federal Civil Penalties Inflation Adjustment Act Improvements Act of 2015, Public Law 114-74, sec. 701, 129 Stat. 599 (2015); and Section 1.98(d) of the FTC's Rules of Practice, 16 C.F.R. § 1.98(d), authorizes this Court to award monetary civil penalties of not more than \$46,517 for each violation of the Rule after January 10, 2022.

Count II
Unfair Default Settings

67. Section 5(a) of the FTC Act, 15 U.S.C. § 45(a), prohibits “unfair or deceptive acts or practices in or affecting commerce.”

68. Acts or practices are unfair under Section 5 of the FTC Act if they cause or are likely to cause substantial injury to consumers that consumers cannot reasonably avoid themselves and that is not outweighed by countervailing benefits to consumers or competition. 15 U.S.C. § 45(n).

69. As described in Paragraphs 10 through 35 above, Defendant has developed and operated, and continues to develop and operate, a ubiquitous, freely-available, and internet-enabled video game directed at children and teens that publicly broadcasts players’ display names while putting children and teens in direct, real-time contact with others through on-by-default lines of voice and text communication. Even after instituting an age gate on its service, Defendant has continued to broadcast display names and enable such direct communication by default for all players, including children who identify themselves as under 13 and young teens.

70. As described in Paragraphs 36 through 43 above, Defendant’s actions cause or are likely to cause substantial injury to consumers that consumers cannot reasonably avoid themselves and that is not outweighed by countervailing benefits to consumers or competition.

71. Therefore, Defendant's acts or practices as set forth in Paragraph 69 constitute unfair acts or practices in violation of Section 5 of the FTC Act, 15 U.S.C. § 45(a), (n).

CONSUMER INJURY

72. Consumers are suffering, have suffered, and will continue to suffer substantial injury as a result of Defendant's violations of the FTC Act and the Rule. Absent injunctive relief by this Court, Defendant is likely to continue to injure consumers and harm the public interest.

PRAYER FOR RELIEF

73. Wherefore, Plaintiff United States of America requests that the Court:

A. Enter a permanent injunction to prevent future violations of the FTC Act and the Rule by Defendant;

B. Award Plaintiff monetary civil penalties from Defendant for each violation of the Rule alleged in this Complaint; and

C. Award any additional relief as the Court determines to be just and proper.

Dated: December 19, 2022

Respectfully submitted,

FOR THE FEDERAL TRADE
COMMISSION:

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Acting Associate Director
Division of Privacy & Identity
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Assistant Director

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LISA K. HSIAO
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Trial Attorney

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CIVIL COVER SHEET

The JS 44 civil cover sheet and the information contained herein neither replace nor supplement the filing and service of pleadings or other papers as required by law, except as provided by local rules of court. This form, approved by the Judicial Conference of the United States in September 1974, is required for the use of the Clerk of Court for the purpose of initiating the civil docket sheet. (SEE INSTRUCTIONS ON NEXT PAGE OF THIS FORM.)

I. (a) PLAINTIFFS

United States of America

(b) County of Residence of First Listed Plaintiff
(EXCEPT IN U.S. PLAINTIFF CASES)

(c) Attorneys (Firm Name, Address, and Telephone Number)

Michael J. Wadden, United States Department of Justice,
450 5th St., NW, Washington DC 20001

DEFENDANTS

Epic Games, Inc.

County of Residence of First Listed Defendant Wake
(IN U.S. PLAINTIFF CASES ONLY)NOTE: IN LAND CONDEMNATION CASES, USE THE LOCATION OF
THE TRACT OF LAND INVOLVED

Attorneys (If Known)

Robert Van Arnam, Williams Mullen
301 Fayetteville St., Suite 1700, Raleigh, NC 27601

II. BASIS OF JURISDICTION (Place an "X" in One Box Only)

- ☒ 1 U.S. Government Plaintiff
☐ 2 U.S. Government Defendant
☐ 3 Federal Question
(U.S. Government Not a Party)
☐ 4 Diversity
(Indicate Citizenship of Parties in Item III)

III. CITIZENSHIP OF PRINCIPAL PARTIES (Place an "X" in One Box for Plaintiff and One Box for Defendant)

- | | PTF | DEF | | PTF | DEF |
|---|----------------------------|----------------------------|---|----------------------------|----------------------------|
| Citizen of This State | <input type="checkbox"/> 1 | <input type="checkbox"/> 1 | Incorporated or Principal Place of Business In This State | <input type="checkbox"/> 4 | <input type="checkbox"/> 4 |
| Citizen of Another State | <input type="checkbox"/> 2 | <input type="checkbox"/> 2 | Incorporated and Principal Place of Business In Another State | <input type="checkbox"/> 5 | <input type="checkbox"/> 5 |
| Citizen or Subject of a Foreign Country | <input type="checkbox"/> 3 | <input type="checkbox"/> 3 | Foreign Nation | <input type="checkbox"/> 6 | <input type="checkbox"/> 6 |

IV. NATURE OF SUIT (Place an "X" in One Box Only)

Click here for: [Nature of Suit Code Descriptions.](#)

CONTRACT	TORTS	FORFEITURE/PENALTY	BANKRUPTCY	OTHER STATUTES
<input type="checkbox"/> 110 Insurance <input type="checkbox"/> 120 Marine <input type="checkbox"/> 130 Miller Act <input type="checkbox"/> 140 Negotiable Instrument <input type="checkbox"/> 150 Recovery of Overpayment & Enforcement of Judgment <input type="checkbox"/> 151 Medicare Act <input type="checkbox"/> 152 Recovery of Defaulted Student Loans (Excludes Veterans) <input type="checkbox"/> 153 Recovery of Overpayment of Veteran's Benefits <input type="checkbox"/> 160 Stockholders' Suits <input type="checkbox"/> 190 Other Contract <input type="checkbox"/> 195 Contract Product Liability <input type="checkbox"/> 196 Franchise	PERSONAL INJURY <input type="checkbox"/> 310 Airplane <input type="checkbox"/> 315 Airplane Product Liability <input type="checkbox"/> 320 Assault, Libel & Slander <input type="checkbox"/> 330 Federal Employers' Liability <input type="checkbox"/> 340 Marine <input type="checkbox"/> 345 Marine Product Liability <input type="checkbox"/> 350 Motor Vehicle <input type="checkbox"/> 355 Motor Vehicle Product Liability <input type="checkbox"/> 360 Other Personal Injury <input type="checkbox"/> 362 Personal Injury - Medical Malpractice PERSONAL INJURY <input type="checkbox"/> 365 Personal Injury - Product Liability <input type="checkbox"/> 367 Health Care/Pharmaceutical Personal Injury Product Liability <input type="checkbox"/> 368 Asbestos Personal Injury Product Liability PERSONAL PROPERTY <input type="checkbox"/> 370 Other Fraud <input type="checkbox"/> 371 Truth in Lending <input type="checkbox"/> 380 Other Personal Property Damage <input type="checkbox"/> 385 Property Damage Product Liability	<input type="checkbox"/> 625 Drug Related Seizure of Property 21 USC 881 <input type="checkbox"/> 690 Other LABOR <input type="checkbox"/> 710 Fair Labor Standards Act <input type="checkbox"/> 720 Labor/Management Relations <input type="checkbox"/> 740 Railway Labor Act <input type="checkbox"/> 751 Family and Medical Leave Act <input type="checkbox"/> 790 Other Labor Litigation <input type="checkbox"/> 791 Employee Retirement Income Security Act IMMIGRATION <input type="checkbox"/> 462 Naturalization Application <input type="checkbox"/> 465 Other Immigration Actions	<input type="checkbox"/> 422 Appeal 28 USC 158 <input type="checkbox"/> 423 Withdrawal 28 USC 157 INTELLECTUAL PROPERTY RIGHTS <input type="checkbox"/> 820 Copyrights <input type="checkbox"/> 830 Patent <input type="checkbox"/> 835 Patent - Abbreviated New Drug Application <input type="checkbox"/> 840 Trademark <input type="checkbox"/> 880 Defend Trade Secrets Act of 2016 SOCIAL SECURITY <input type="checkbox"/> 861 HIA (1395ff) <input type="checkbox"/> 862 Black Lung (923) <input type="checkbox"/> 863 DIWC/DIWW (405(g)) <input type="checkbox"/> 864 SSID Title XVI <input type="checkbox"/> 865 RSI (405(g)) FEDERAL TAX SUITS <input type="checkbox"/> 870 Taxes (U.S. Plaintiff or Defendant) <input type="checkbox"/> 871 IRS—Third Party 26 USC 7609	<input type="checkbox"/> 375 False Claims Act <input type="checkbox"/> 376 Qui Tam (31 USC 3729(a)) <input type="checkbox"/> 400 State Reapportionment <input type="checkbox"/> 410 Antitrust <input type="checkbox"/> 430 Banks and Banking <input type="checkbox"/> 450 Commerce <input type="checkbox"/> 460 Deportation <input type="checkbox"/> 470 Racketeer Influenced and Corrupt Organizations <input type="checkbox"/> 480 Consumer Credit (15 USC 1681 or 1692) <input type="checkbox"/> 485 Telephone Consumer Protection Act <input type="checkbox"/> 490 Cable/Sat TV <input type="checkbox"/> 850 Securities/Commodities/Exchange <input checked="" type="checkbox"/> 890 Other Statutory Actions <input type="checkbox"/> 891 Agricultural Acts <input type="checkbox"/> 893 Environmental Matters <input type="checkbox"/> 895 Freedom of Information Act <input type="checkbox"/> 896 Arbitration <input type="checkbox"/> 899 Administrative Procedure Act/Review or Appeal of Agency Decision <input type="checkbox"/> 950 Constitutionality of State Statutes
REAL PROPERTY <input type="checkbox"/> 210 Land Condemnation <input type="checkbox"/> 220 Foreclosure <input type="checkbox"/> 230 Rent Lease & Ejectment <input type="checkbox"/> 240 Torts to Land <input type="checkbox"/> 245 Tort Product Liability <input type="checkbox"/> 290 All Other Real Property	CIVIL RIGHTS <input type="checkbox"/> 440 Other Civil Rights <input type="checkbox"/> 441 Voting <input type="checkbox"/> 442 Employment <input type="checkbox"/> 443 Housing/Accommodations <input type="checkbox"/> 445 Amer w/Disabilities - Employment <input type="checkbox"/> 446 Amer w/Disabilities - Other <input type="checkbox"/> 448 Education PRISONER PETITIONS Habeas Corpus: <input type="checkbox"/> 463 Alien Detainee <input type="checkbox"/> 510 Motions to Vacate Sentence <input type="checkbox"/> 530 General <input type="checkbox"/> 535 Death Penalty Other: <input type="checkbox"/> 540 Mandamus & Other <input type="checkbox"/> 550 Civil Rights <input type="checkbox"/> 555 Prison Condition <input type="checkbox"/> 560 Civil Detainee - Conditions of Confinement			

V. ORIGIN (Place an "X" in One Box Only)

- ☒ 1 Original Proceeding
☐ 2 Removed from State Court
☐ 3 Remanded from Appellate Court
☐ 4 Reinstated or Reopened
☐ 5 Transferred from Another District (specify)
☐ 6 Multidistrict Litigation - Transfer
☐ 8 Multidistrict Litigation - Direct File

VI. CAUSE OF ACTION

Cite the U.S. Civil Statute under which you are filing (Do not cite jurisdictional statutes unless diversity):
Federal Trade Commission Act and Children's Online Privacy Protection Act of 1998Brief description of cause:
Unlawful collection of children's personal information

VII. REQUESTED IN COMPLAINT:

☐ CHECK IF THIS IS A CLASS ACTION UNDER RULE 23, F.R.Cv.P.DEMAND \$
civil penalties in an amount

CHECK YES only if demanded in complaint:

JURY DEMAND: ☐ Yes ☒ No

VIII. RELATED CASE(S) IF ANY

(See instructions):

JUDGE

DOCKET NUMBER

DATE

SIGNATURE OF ATTORNEY OF RECORD

December 19, 2022

/s/ Michael J. Wadden

FOR OFFICE USE ONLY

RECEIPT #

AMOUNT

FILING FEE

JUDGE

MAG JUDGE

INSTRUCTIONS FOR ATTORNEYS COMPLETING CIVIL COVER SHEET FORM JS 44

Authority For Civil Cover Sheet

The JS 44 civil cover sheet and the information contained herein neither replaces nor supplements the filings and service of pleading or other papers as required by law, except as provided by local rules of court. This form, approved by the Judicial Conference of the United States in September 1974, is required for the use of the Clerk of Court for the purpose of initiating the civil docket sheet. Consequently, a civil cover sheet is submitted to the Clerk of Court for each civil complaint filed. The attorney filing a case should complete the form as follows:

- I.(a) Plaintiffs-Defendants.** Enter names (last, first, middle initial) of plaintiff and defendant. If the plaintiff or defendant is a government agency, use only the full name or standard abbreviations. If the plaintiff or defendant is an official within a government agency, identify first the agency and then the official, giving both name and title.
 - (b) County of Residence.** For each civil case filed, except U.S. plaintiff cases, enter the name of the county where the first listed plaintiff resides at the time of filing. In U.S. plaintiff cases, enter the name of the county in which the first listed defendant resides at the time of filing. (NOTE: In land condemnation cases, the county of residence of the "defendant" is the location of the tract of land involved.)
 - (c) Attorneys.** Enter the firm name, address, telephone number, and attorney of record. If there are several attorneys, list them on an attachment, noting in this section "(see attachment)".
- II. Jurisdiction.** The basis of jurisdiction is set forth under Rule 8(a), F.R.Cv.P., which requires that jurisdictions be shown in pleadings. Place an "X" in one of the boxes. If there is more than one basis of jurisdiction, precedence is given in the order shown below.
- United States plaintiff. (1) Jurisdiction based on 28 U.S.C. 1345 and 1348. Suits by agencies and officers of the United States are included here. United States defendant. (2) When the plaintiff is suing the United States, its officers or agencies, place an "X" in this box.
- Federal question. (3) This refers to suits under 28 U.S.C. 1331, where jurisdiction arises under the Constitution of the United States, an amendment to the Constitution, an act of Congress or a treaty of the United States. In cases where the U.S. is a party, the U.S. plaintiff or defendant code takes precedence, and box 1 or 2 should be marked.
- Diversity of citizenship. (4) This refers to suits under 28 U.S.C. 1332, where parties are citizens of different states. When Box 4 is checked, the citizenship of the different parties must be checked. (See Section III below; **NOTE: federal question actions take precedence over diversity cases.**)
- III. Residence (citizenship) of Principal Parties.** This section of the JS 44 is to be completed if diversity of citizenship was indicated above. Mark this section for each principal party.
- IV. Nature of Suit.** Place an "X" in the appropriate box. If there are multiple nature of suit codes associated with the case, pick the nature of suit code that is most applicable. Click here for: [Nature of Suit Code Descriptions](#).
- V. Origin.** Place an "X" in one of the seven boxes.
- Original Proceedings. (1) Cases which originate in the United States district courts.
- Removed from State Court. (2) Proceedings initiated in state courts may be removed to the district courts under Title 28 U.S.C., Section 1441.
- Remanded from Appellate Court. (3) Check this box for cases remanded to the district court for further action. Use the date of remand as the filing date.
- Reinstated or Reopened. (4) Check this box for cases reinstated or reopened in the district court. Use the reopening date as the filing date.
- Transferred from Another District. (5) For cases transferred under Title 28 U.S.C. Section 1404(a). Do not use this for within district transfers or multidistrict litigation transfers.
- Multidistrict Litigation – Transfer. (6) Check this box when a multidistrict case is transferred into the district under authority of Title 28 U.S.C. Section 1407.
- Multidistrict Litigation – Direct File. (8) Check this box when a multidistrict case is filed in the same district as the Master MDL docket.
- PLEASE NOTE THAT THERE IS NOT AN ORIGIN CODE 7.** Origin Code 7 was used for historical records and is no longer relevant due to changes in statute.
- VI. Cause of Action.** Report the civil statute directly related to the cause of action and give a brief description of the cause. **Do not cite jurisdictional statutes unless diversity.** Example: U.S. Civil Statute: 47 USC 553 Brief Description: Unauthorized reception of cable service.
- VII. Requested in Complaint.** Class Action. Place an "X" in this box if you are filing a class action under Rule 23, F.R.Cv.P.
- Demand. In this space enter the actual dollar amount being demanded or indicate other demand, such as a preliminary injunction.
- Jury Demand. Check the appropriate box to indicate whether or not a jury is being demanded.
- VIII. Related Cases.** This section of the JS 44 is used to reference related pending cases, if any. If there are related pending cases, insert the docket numbers and the corresponding judge names for such cases.

Date and Attorney Signature. Date and sign the civil cover sheet.

Eastern District of North Carolina

Civil Action No. 5:22-00518

Case 5:22-cv-00518-BO Document 1-2 Filed 12/19/22 Page 1 of 2

Civil Action No. 5:22-00518

PROOF OF SERVICE*(This section should not be filed with the court unless required by Fed. R. Civ. P. 4 (l))*

This summons for *(name of individual and title, if any)* _____
 was received by me on *(date)* _____ .

☐ I personally served the summons on the individual at *(place)* _____
 _____ on *(date)* _____ ; or

☐ I left the summons at the individual's residence or usual place of abode with *(name)* _____
 _____, a person of suitable age and discretion who resides there,
 on *(date)* _____, and mailed a copy to the individual's last known address; or

☐ I served the summons on *(name of individual)* _____, who is
 designated by law to accept service of process on behalf of *(name of organization)* _____
 _____ on *(date)* _____ ; or

☐ I returned the summons unexecuted because _____ ; or

☐ Other *(specify)*: _____

My fees are \$ _____ for travel and \$ _____ for services, for a total of \$ 0.00 .

I declare under penalty of perjury that this information is true.

Date: _____

Server's signature

Printed name and title

Server's address

Additional information regarding attempted service, etc:

EXHIBIT 19

FOR PUBLICATION

FILED

UNITED STATES COURT OF APPEALS

JUL 17 2023

FOR THE NINTH CIRCUIT

MOLLY C. DWYER, CLERK
U.S. COURT OF APPEALS

EPIC GAMES, INC.,

Plaintiff-counter-
defendant-Appellant,

v.

APPLE, INC.,

Defendant-counter-claimant-
Appellee.

No. 21-16506

D.C. No. 4:20-cv-05640-YGR
Northern District of California,
Oakland

ORDER

EPIC GAMES, INC.,

Plaintiff-counter-
defendant-Appellee,

v.

APPLE, INC.,

Defendant-counter-claimant-
Appellant.

No. 21-16695

D.C. No. 4:20-cv-05640-YGR

Before: S.R. THOMAS and M. SMITH, Circuit Judges, and McSHANE,* District Judge.

Concurrence by Judge M. SMITH.

* The Honorable Michael J. McShane, United States District Judge for the District of Oregon, sitting by designation.

Apple's Motion to Stay the Mandate (Dkt No. 247) is GRANTED. Pursuant to Rule 41(d) of the Federal Rules of Appellate Procedure, the mandate is stayed for 90 days to permit the filing of a petition for writ of certiorari in the Supreme Court. Apple must notify the Court in writing that the petition has been filed, in which case the stay will continue until the Supreme Court resolves the petition. *See* Fed. R. App. P. 41(d)(2)(B)(ii). Should the Supreme Court grant certiorari, the mandate will be stayed pending disposition of the case. Should the Supreme Court deny certiorari, the mandate will issue immediately. The parties shall advise this Court immediately upon the Supreme Court's decision.

JUL 17 2023

Epic Games v. Apple, Nos. 21-16506 & 16695MOLLY C. DWYER, CLERK
U.S. COURT OF APPEALS

M. SMITH, Circuit Judge, concurring in the granting of the motion for a stay of the mandate pending the filing of a petition for certiorari:

Given our general practice of granting a motion for a stay if the arguments presented therein are not frivolous, I have voted to grant Apple's motion. *See United States v. Pete*, 525 F.3d 844, 850 (9th Cir. 2008) (it is "often the case" that our court stays the mandate while a party seeks certiorari). I write separately to express my view that, while the arguments in Apple's motion may not be technically frivolous, they ignore key aspects of the panel's reasoning and key factual findings by the district court. When our reasoning and the district court's findings are considered, Apple's arguments cannot withstand even the slightest scrutiny. Apple's standing and scope-of-the-injunction arguments simply masquerade its disagreement with the district court's findings and objection to state-law liability as contentions of legal error.

I. STANDING

Because Apple's anti-steering provision negatively affects the revenue Epic earns through the Epic Games Store, Epic had standing to seek injunctive relief against that provision pursuant to California's Unfair Competition Law (UCL), Cal. Bus. & Prof. Code § 17200 *et seq.*

To establish standing, a plaintiff must have "suffered an injury in fact that is concrete, particularized, and actual or imminent." *TransUnion LLC v. Ramirez*, 141

S. Ct. 2190, 2203 (2021). “[M]onetary harms” are one of the “[m]ost obvious” types of harm that satisfy the injury-in-fact requirement. *Id.* at 2204.

Epic has “three primary lines of business, each of which figures into various aspects of [this case].” *Epic Games, Inc. v. Apple, Inc. (Epic II)*, 67 F.4th 946, 967 (9th Cir. 2023). First, Epic is a “video game developer—best known for the immensely popular *Fortnite*.” *Id.* Second, Epic is the “the parent company of a gaming-software developer” (Epic International), which still has several apps on Apple’s App Store. *Id.* Third, Epic is “a video game publisher and distributor,” offering “the Epic Games Store as a game-transaction platform” on multiple devices. *Id.* at 968. In this last role, Epic is “a direct competitor” of Apple’s App Store “when it comes to games that feature cross-platform functionality like *Fortnite*.” *Id.*

As the panel opinion explained, the second and third lines of business—not the first—give rise to an injury in fact. *See id.* at 1000. As the parent company of Epic International, Epic is harmed because its subsidiary still has apps on the App Store that are subject to the anti-steering provision. As a games distributor, Epic is harmed because app developers cannot direct, with the promise of lower prices, their users to the Epic Games Store, which takes a significantly lower commission on app purchases than the App Store. As we explained: “[Epic] offers a 12% commission compared to Apple’s 30% commission. If consumers can learn about lower app prices, which are made possible by developers’ lower costs, and have the ability to

substitute to the platform with those lower prices, they will [almost always] do so—increasing the revenue that the Epic Games Store generates.” *Id.*

Such monetary loss is hornbook injury-in-fact, and Apple’s arguments to the contrary misconstrue both our decision and the record. Apple asserts that Epic lacks standing because “Epic’s developer program account has been terminated,” meaning Epic “has no apps on the App Store.” But we did not conclude, as Apple’s argument suggests, that Epic was injured in its role as a video game developer (*i.e.*, as the creator of the since-removed *Fortnite*). We recognized at the very start of our standing analysis that Apple had “terminated Epic’s iOS developer account,” and instead determined that Epic suffered an injury-in-fact in its role as a parent company and competing games distributor. *Id.* at 1000.

Regarding these two bases on which we actually determined standing, Apple offers only the conclusory statement that “no trial evidence or findings by the district court” support them. However, that assertion is simply false. Regarding Epic’s role as the parent of Epic International, the record contains screenshots showing that Epic International still has six apps on the App Store, even though the parent company’s developer account has been terminated.

The record is also filled with support for the common-sense proposition that Epic is harmed as a competing games distributor because consumers would shift some of their spending from the App Store to the Epic Games Store if developers

could communicate the availability of lower prices on the latter. To begin, Apple’s own internal documents conclude that two of the “most effective marketing activities” are “push notifications” and “email outreach,” which are the two practices prohibited by Apple’s anti-steering provision. *Epic Games, Inc. v. Apple Inc. (Epic I)*, 559 F. Supp. 3d 898, 1054 (N.D. Cal. 2021); *see also Epic II*, 67 F.4th at 1001. Moreover, before the district court, Apple defeated Epic’s proposed market definition for its Sherman Act claims based on the very kind of factual findings that it now claims are non-existent. The district court found that video games increasingly can be “ported across multiple devices” because of the growing prevalence of cross-platform functionality. *Epic I*, 559 F. Supp. 3d at 985; *see also Epic II*, 67 F.4th at 967 (describing “cross-play,” “cross-progression,” and “cross-wallet”). “[N]ot all games” feature cross-platform functionality, and some platforms have taken steps to limit it. *Epic I*, 559 F. Supp. 3d. at 985. But when it comes to the games that *do* offer such cross-platform functionality, app-transaction platforms (like the App Store and Epic Games Store) “are truly competing against one another.” *Id.* The district court, therefore, rejected the contention that the App Store is a market unto itself and summarized its analysis as follows: “[N]either consumers nor developers are ‘locked-in’ to the App Store for digital mobile game transactions—they can and do pursue game transactions on a variety of other mobile platforms and increasingly other game platforms.” *Id.* at 1026. Indeed, the district

court found that *Fortnite* data provided a particularly vivid illustration: Between 32 and 52% of *Fortnite* users play the game on multiple devices, and, after *Fortnite* was removed from the App Store, 87% of *Fortnite* spending that had occurred on iOS devices was shifted to other platforms. *Id.* at 961 & n.277.¹

Apple wants to have it both ways: On the merits, it argued that there was sufficient evidence to support a finding that consumers can, and do, substitute across various app-transaction platforms. But on standing, it now argues that there would be absolutely no substitution if app developers could inform users of lower prices available on the Epic Games Store.

II. SCOPE OF THE INJUNCTION

The district court did not abuse its discretion in enjoining Apple’s anti-steering provision as to all iOS developers because doing so was necessary to fully remedy the harm that Epic suffers in its role as a competing games distributor.²

¹ On appeal, the panel majority did not address the district court’s substitution factual finding, as we determined that Epic failed to make a required threshold showing for its proposed single-brand market: that the restrictions it alleged to cause consumer lock-in were “not generally known” to consumers when they purchased iOS devices in the foremarket. *Epic II*, 67 F.4th at 976–77, 980–81.

² Apple argues in its motion for a stay that the injunction will subject iOS users to “scams, fraud, and objectionable content.” But the district court expressly found that the anti-steering provision could be enjoined “without any impact on the integrity of the [iOS] ecosystem.” *Epic I*, 559 F. Supp. 3d at 1055. Both the district court and our court upheld Apple’s ability to control *what content* can be downloaded on iOS devices. The injunction against the anti-steering provision

“[I]njunctive relief should be no more burdensome to the defendant than necessary to provide complete relief to the plaintiff[.]” *Califano v. Yamasaki*, 442 U.S. 682, 702 (1979); *see also Epic*, 67 F.4th at 1002 (setting forth the same rule). An injunction remedying a plaintiff’s harm may “affect[] nonparties[] [if] it does so only incidentally.” *United States v. Texas*, 2023 WL 4139000, at *12 (U.S. June 23, 2023) (Gorsuch, J., concurring); *see also Bresgal v. Brock*, 843 F.2d 1163, 1170–71 (9th Cir. 1988) (“[A]n injunction is not necessarily made overbroad by extending benefit or protection to persons other than the prevailing parties in the lawsuit—even if it is not a class action—if such breadth is necessary to give prevailing parties the relief to which they are entitled.”).

Apple contends that the district court’s injunction impermissibly allowed Epic’s suit to proceed as a “de facto” class action in which Epic obtained nationwide injunctive “relief on behalf of others.” To paint this picture, it argues that “the panel never explained” how harm to Epic’s “subsidiaries justified an injunction applicable not only to . . . its subsidiaries, but also to all other U.S. developers.” Like its standing argument, this argument overlooks aspects of the panel opinion’s analysis that are inconvenient to its position and is incorrect. As the opinion explained, it was Epic’s role as a competing games distributor—not its role as a parent

simply allows developers to let users know that certain content (which Apple has itself chosen to allow access to) can be purchased at a lower price elsewhere.

company—that justified application of the injunction beyond just Epic’s subsidiaries. As a games distributor, Epic is harmed by Apple’s anti-steering provision’s prevention of “other apps’ users from becoming would-be Epic Games Store consumers.” *Epic II*, 67 F.4th at 1003. Had the district court limited the injunction only to Epic’s subsidiaries’ apps on the App Store, the injunction would have “fail[ed] to address the full harm caused by the anti-steering provision.” *Id.* The injunction is thus consistent with the minimally-burdensome principle because the injunction’s “scope is tied to Epic’s injuries.” *Id.*

Apple’s argument also overlooks that, in an antitrust suit brought by a competitor, injunctive relief will almost by definition have incidental benefits to non-parties—since antitrust law protects competition, not individual market participants. To be sure, it is the “the exception,” not the rule, for injunctive relief to incidentally affect non-parties—and such cases will likely be few and far between in most areas of law. *Cachil Dehe Band of Wintun Indians of Colusa Indian Cmty. v. California*, 618 F.3d 1066, 1084 (9th Cir. 2010). But injunctions with incidental benefits for non-parties are the inevitable result when a competitor-plaintiff makes the difficult showing that it is entitled to injunctive relief pursuant to state or federal competition law. As a threshold matter, a competitor-plaintiff must prove that the defendant’s conduct caused it a tangible injury *as a competitor*. But to ultimately prevail and obtain relief, it must prove that the defendant’s conduct harmed

competition (i.e., consumers). This two-types-of-harm requirement necessarily means that relief will have two types of benefits—remedying the competitor’s harm in the main, while benefitting consumers incidentally.

Begin with the statute at issue here: California’s UCL. To establish statutory standing, a competitor-plaintiff must have “suffered injury in fact and . . . lost money or property,” such that its bottom line as a competitor was negatively affected. Cal. Bus. & Prof. Code § 17204. But to win on the merits, a competitor-plaintiff must show that the defendant’s conduct “threatens an incipient violation of an antitrust law, . . . violates [antitrust law’s] policy or spirit . . . , or otherwise significantly threatens or harms competition.” *Cel-Tech Commc’ns, Inc. v. L.A. Cellular Tel. Co.*, 20 Cal. 4th 163, 186–87 (1999). Because antitrust’s goal is the “the protection of *competition*, not *competitors*,” *Cargill, Inc. v. Monfort of Colo., Inc.*, 479 U.S. 104, 110 (1986), a competitor-plaintiff will win on the merits only if it proves that the defendant’s conduct harms consumers. Therefore, by the time a court is fashioning injunctive relief in a UCL competitor suit, the court has already determined *both* that (1) the defendant’s conduct caused the plaintiff-competitor to lose “money or property,” *and* (2) that the same conduct harmed consumers. Relief remedying (1) will necessarily have incidental benefits for the consumers found to have been harmed at (2). If that were not the case, then the plaintiff-competitor would not have prevailed on the merits.

Federal law imposes a similar two-types-of-harm requirement. To establish Article III standing, a plaintiff-competitor must have “suffered an injury in fact,” such as “monetary harm[.]” *TransUnion*, 141 S. Ct. at 2203. But the plaintiff-competitor must also establish antitrust injury—that their “injury [is] of the type the antitrust laws were designed to prevent.” *Cargill*, 479 U.S. at 111, 117 (lost profits caused by competitor’s lower prices after merger are not antitrust injury). Similarly, on the merits, the competitor-plaintiff must prove the defendant’s conduct harms consumers by, for example, decreasing output or raising prices. *See Epic II*, 67 F.4th at 983. If a competitor-plaintiff is able to serve two masters and establish Article III standing on the one hand and antitrust injury and liability on the other, then the competitor-plaintiff would have necessarily shown that the defendant’s conduct harms *both* the plaintiff as a competitor *and* consumers. So again, it is hardly surprising that the injunctive relief granted in such a case will carry incidental benefits for consumers.

Consider, as an example, the Kodak-parts litigation that was the subject of the Supreme Court’s decision in *Eastman Kodak Co. v. Image Technical Services, Inc.*, 504 U.S. 451 (1992). Independent service organizations (ISOs) alleged that Kodak violated federal antitrust law by “adopt[ing] policies to limit the availability of parts to [the] ISOs to make it more difficult for ISOs to compete with Kodak in servicing Kodak equipment.” *Id.* at 455. The Supreme Court affirmed our court’s denial of

summary judgment, *id.* at 486; on remand, the ISOs prevailed in a jury trial and the district court entered an injunction requiring Kodak to sell its parts to ISOs on “reasonable and nondiscriminatory terms and prices.” *Image Tech. Servs., Inc. v. Eastman Kodak Co.*, 125 F.3d 1195, 1201 (9th Cir. 1997). The injunction remedied the ISOs’ harm: their inability to compete for “large contracts” because they lacked “sufficient parts.” *Id.* at 1222. But the injunction also incidentally benefited consumers by breaking up what the jury had found to be an unlawfully maintained monopoly. *See id.* at 1207–12. The injunction was challenged on several grounds, *see id.* at 1224–25, but there was no hint of the radical argument that Apple now advances: that a competition-law injunction is invalid if it benefits consumers.

CONCLUSION

Apple’s standing and scope-of-the-injunction arguments challenge an imagined panel opinion on an imagined record. When the panel opinion’s reasoning and the district court’s factual findings are fully considered, the motion’s arguments fall far short of establishing legal error.

EXHIBIT 20

(ORDER LIST: 601 U.S.)

TUESDAY, JANUARY 16, 2024

ORDERS IN PENDING CASES

23M48 BAKER, JOHN, ET AL. V. CSX TRANSPORTATION, INC., ET AL.

The motion for leave to file a petition for a writ of certiorari with the supplemental appendix under seal is granted.

23-14 DIAZ, DELILAH G. V. UNITED STATES

The motion for leave to file petitioner's brief on the merits under seal with redacted copies for the public record is granted.

23-21 HARROW, STUART R. V. DEPT. OF DEFENSE

23-370 ERLINGER, PAUL V. UNITED STATES

The motions of petitioners to dispense with printing the joint appendices are granted.

23-5444 STREGE, ADAM P. V. VOS, ERIC A., ET AL.

The motion of petitioner for reconsideration of order denying leave to proceed *in forma pauperis* is denied.

CERTIORARI DENIED

23-171 QUINN, CHRIS, ET AL. V. WASHINGTON, ET AL.

23-179 ALASKA, ET AL. V. ALASKA EMPLOYEES ASSOC.

23-232 BASF METALS LTD, ET AL. V. KPFF INVESTMENT, INC., ET AL.

23-337) EPIC GAMES, INC. V. APPLE INC.

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23-344) APPLE INC. V. EPIC GAMES, INC.

23-380 MILITARY-VETERANS ADVOCACY V. McDONOUGH, SEC. OF VA

23-384 BORESKEY, MICHAEL V. GRABER, JEREMY

23-390 BHATTACHARYA, ARUN K. V. STATE BANK OF INDIA

23-392 METROPOLITAN SCHOOL DISTRICT V. A. C.
23-495 TRIM, LUCINE V. REWARD ZONE USA LLC, ET AL.
23-501 MALLORY, NORMAN A. V. ROCKY MOUNTAIN HUMAN SERVICE
23-508 MATTHEWS, MICAH S. V. TRIPP, WARDEN
23-515 AMORY INVESTMENTS LLC, ET AL. V. UTRECHT-AMERICA HOLDINGS, ET AL.
23-516 SMITH, MICHAEL D. V. GORDON, DEREK, ET AL.
23-527 RAB, RAJI V. WEBER, CA SEC. OF STATE, ET AL.
23-5417 LIGGETT, ARI M. V. COLORADO
23-5592 GREENE, BEAU J. V. ARIZONA
23-5714 PERAITA, CUHUATEMOC H. V. ALABAMA
23-6001 JACKSON, KENRIC L. V. TEXAS
23-6016 GREEN, MALIK V. DIXON, SEC., FL DOC
23-6031 DODWELL-WRIGHT, ANDRIA V. NATIONWIDE INS. CO., ET AL.
23-6033 SMITH, DARRYL V. USDC ND OH
23-6040 BUSTOS, ERNEST V. ENCINO PARK HOMEOWNERS ASSOC.
23-6047 REED, RALPH V. MAY, WARDEN, ET AL.
23-6052 BAILEY, LARRY V. WEST LAUREL WATER ASSN., ET AL.
23-6074 ONYEJIKA, SYLVESTER V. MISSOURI
23-6076 PEDRAZA, TIMOTHY R. V. LUMPKIN, DIR., TX DCJ
23-6080 CLOSE, STEVEN B. V. O'MALLEY, COMM'R, SOCIAL SEC.
23-6184 BEST, BRIAN V. SMITH, VIRGIL
23-6260 LINDER, CHARLES E. V. BLACK, WARDEN

The petitions for writs of certiorari are denied.

23-548 SCHIEBER, JENNY, ET AL. V. UNITED STATES

The petition for a writ of certiorari is denied. Justice Jackson took no part in the consideration or decision of this petition. See 28 U. S.C. §455 and Code of Conduct for Justices of the Supreme Court of the United States, Canon 3B(2)(e) (prior

judicial service).

23-6004 SCOTT, REGINALD C. V. MASON, SUPT., MAHANOEY, ET AL.

The petition for a writ of certiorari is denied. Justice Alito took no part in the consideration or decision of this petition.

HABEAS CORPUS DENIED

23-6326 IN RE LUIS F. ISAZA ARANGO

The petition for a writ of habeas corpus is denied.

23-6360 IN RE BURT SETTS

The motion of petitioner for leave to proceed *in forma pauperis* is denied, and the petition for a writ of habeas corpus is dismissed. See Rule 39.8.

REHEARINGS DENIED

22-7640 WIGGINS, HERBERT L. V. LUMPKIN, DIR., TX DCJ

22-7742 TAYLOR, KENT V. CALIFORNIA

22-7812 CISNEROS, MIGUEL A. V. ALLEN, WARDEN

23-303 TOWNSEND, FAITH V. ROCKWELL AUTOMATION, INC.

23-5366 DEEPHOUSE, RICKY A. V. WYOMING

23-5501 CHEN, MAY V. METROPOLITAN POLICE, ET AL.

23-5643 IN RE GREGORY MERCER

The petitions for rehearing are denied.

EXHIBIT 21



Yonatan Even
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New York

July 19, 2023

Re: *In re: Google Play Store Antitrust Litigation*, No. 3:21-md-02981-JD (N.D. Cal.);
Epic Games, Inc. v. Google LLC, No. 3:20-cv-05671-JD (N.D. Cal.);
State of Utah, et al. v. Google LLC, et al., No. 3:21-cv-05227-JD (N.D. Cal.)

Dear Elinor, Melissa, Paula, Sarah:

Further to our recent discussions, I write on behalf of Epic Games, Inc. (“Epic”), to lay out the key principles that Epic believes should guide any potential settlement of the claims brought by the State Attorneys General Plaintiffs (“State Plaintiffs”) against Google in this MDL. As set forth in their complaint, the State Plaintiffs’ goals in their litigation against Google are to “end Google’s anticompetitive conduct”, “restore competition” and “prevent Google from engaging in similar conduct in the future”¹—goals Epic emphatically agrees with.

The only way for a settlement to accomplish these goals is for it to address three fundamental issues affected by Google’s anticompetitive conduct:

- **Pillar 1 - Open the Android App Distribution Market.** Google must be prohibited from using its control over Android OS to impede new entry and meaningful competition in the Android app distribution market. Importantly, and as further explained below, this requires leveling the playing field for competing app stores **and** enabling secure direct downloading of apps, as direct downloading is the quickest and most effective way to introduce a viable alternative to the Play Store (as demonstrated by distribution models adopted on Windows and Mac systems).
- **Pillar 2 - Open the Android In-App Payment Solution Market.** Google must be prohibited from using its control over Android OS and Android app distribution to foreclose competition in the Android in-app payment solution market and charge supracompetitive monopoly rents.

¹ MDL Dkt. 188, State Plaintiffs’ First Am. Compl. ¶ 26.

- **Pillar 3 - Prevent Circumvention of the Above Remedies.** Given Google’s entrenched dominance in multiple markets, Google must be prohibited from circumventing the terms and purpose of any settlement or the law by simply shifting its anticompetitive behavior and collecting monopoly rents in other adjacent markets, such as imposing fees on transactions that do not go through Google Play Billing (“GPB”).

Achieving all three of these pillars is the only way to ensure that Google’s anticompetitive conduct is ended, markets that Google has tipped in its favor are opened up, meaningful competition is established and the ongoing harms to consumers through inflated prices for, and reduced innovation in, apps and in-app digital content will end.

The importance of a State Plaintiffs’ settlement cannot be overstated: any settlement that falls short of addressing all three pillars stated above will rubber stamp conduct that is illegal under federal and state law, and that will harm innovation and impose excessive prices on consumers for years to come. The States’ role is particularly important as private plaintiffs (other than Epic) may be paid off by Google to settle their claims. It will thus be up to the State Plaintiffs to insist on an injunction that addresses all three pillars. Moreover, how the State Plaintiffs choose to resolve this litigation will have cascading effects on other jurisdictions, which are closely watching how this MDL proceeds. As such, any settlement must include injunctive relief that opens both markets for competition and prevents Google from circumventing the terms and purpose of the relief obtained. Such an injunction is the only way to enable competition to determine the pricing of distribution and payment services, and to reverse the consumer harm (high prices, lack of innovation and lack of consumer choice) caused by Google’s anticompetitive scheme.

Recent experience in other jurisdictions demonstrates that any settlement that fails to address any one of these pillars will inevitably fail to ameliorate the harms caused by Google’s conduct—supracompetitive prices, lack of innovation and diminished consumer choice. Legislatures and regulators in South Korea, the Netherlands and India have adopted measures aimed at requiring Google to allow developers to utilize alternative payment solutions to GPB in apps distributed through Google Play.² But because these measures did not address competition in distribution (Pillar 1) or prohibit Google from taking steps to circumvent the new measures (Pillar 3), the new measures failed to open up any market to competition, instead entrenching Google’s monopolies and raising rates for developers, all under the guise of compliance with the new regulations. Specifically, in response to the new measures, Google introduced a brand new “service fee” of 26-27% of all in-app sales of digital goods, which Google imposes on transactions processed through payment solutions *other than* GPB—i.e., transactions Google is not involved with in any way. The result is that sellers of in-app digital goods in these jurisdictions are given an option: they can continue paying Google its typical 30% fee if they utilize GPB, or they can

² The UK Competition and Markets Authority (CMA) is currently considering accepting commitments by Google to permit developers to use alternative payment solutions to resolve its investigation into Google’s practices. See “App developers on Google Play store offered payment choices following CMA probe”, Competition and Markets Authority (Apr. 19, 2023), available at <https://www.gov.uk/government/news/app-developers-on-google-play-store-offered-payment-choices-following-cma-probe>.

elect to pay Google “only” 27% (in the Netherlands)³ or 26% (in Korea and India)⁴ and then on top of that pay an additional fee to another payment solution—one that invariably brings the developer’s total fees to 30% **or more**.

The newly-introduced 26-27% “service fee” in these jurisdictions is set by fiat, not competition; it is simply an exercise in rate setting—by Google, and by any enforcer accepting that rate as satisfactory. Google is able to impose this new fee and unilaterally set its rate because the new measures do nothing to address its monopoly over app distribution, and Google is able to leverage that monopoly power to set rates that far exceed competitive pricing. Google has set the new rate at this particular level because it is well aware that, on average, it costs *more* than 3-4% to process in-app payments and support ancillary related services (such as customer returns and refunds)⁵—meaning that developers are deterred from leaving GPB for an alternative payment solution by the prospect of facing overall fees that, in the aggregate, are even *higher* than the 30% fee Google charges for the use of GPB. Indeed, this “service fee” penalizes developers for opting for a competing payment solution. In short, by addressing only Pillar 2, regulators abroad allowed Google to replace its historic contractual tie between distribution and payment solutions with an equally effective and equally illegal economic tie.⁶

In a similar vein, an injunction such as the one ordered in *Epic v. Apple*, which would require Google only to allow developers to incorporate in their Android apps buttons or “external links” offering users the option to complete their purchases of digital goods in an inconvenient manner outside the app (*e.g.*, in a web browser), would fail to ameliorate the harm

³ See “Offering an alternative billing system for users in the European Economic Area (EEA)”, Play Console Help, available at https://support.google.com/googleplay/android-developer/answer/12348241?hl=en&ref_topic=3452890&sjid=4231795017615233004-NA. Notably, in Europe, game developers are still subject to the tie and have no choice but to pay Google’s 30% tax. *Id.* (“In order to be eligible [to use an alternative billing system in the European Economic Area] [y]our app may not be a gaming app.”).

⁴ See “Changes to Google Play’s billing requirements for developers serving users in South Korea”, Play Console Help, available at <https://support.google.com/googleplay/android-developer/answer/11222040?hl=en>; “Changes to Google Play’s billing requirements for developers serving users in India”, Play Console Help, available at <https://support.google.com/googleplay/android-developer/answer/13306652?hl=en>. In the UK, Google is also planning to charge developers 26-27% for in-app purchases made using alternative payment solutions. See Oliver Bethell, “An update on Google Play billing in the UK” (Apr. 19, 2023), available at <https://blog.google/around-the-globe/google-europe/an-update-on-google-play-billing-in-the-uk/amp/>.

⁵ In internal Google documents, Google estimated that its own break-even cost for payment processing alone (excluding attendant services and any profit margin) was roughly 6%. See GOOG-PLAY-000565541.R at -5553.R.

⁶ See *Aerotec Int’l, Inc. v. Honeywell Int’l, Inc.*, 836 F.3d 1171, 1179 (9th Cir. 2016) (recognizing that “tying conditions need not be spelled out in express contractual terms to fall within the Sherman Act’s prohibitions” and that “implied” or “de facto” tying claims can occur “when a seller ‘adopts a policy that makes it unreasonably difficult or costly to buy the tying product . . . without buying the tied product’” (citation omitted)); see also *Cascade Health Sols. v. PeaceHealth*, 515 F.3d 883, 903 (9th Cir. 2008) (recognizing that antitrust liability can occur where a firm offers “two or more goods or services that could be sold separately . . . for a lower price than the seller charges for the goods or services purchased individually” and uses this “bundled discount to exclude an equally or more efficient competitor and thereby reduce consumer welfare in the long run”).

caused by Google's conduct.⁷ Again, such an injunction addresses only Pillar 2; it would do nothing to open up app distribution, and absent a strong anti-circumvention measure, it would not prevent Google from again introducing a new fee, this time on linked out-of-app transactions, which would replicate the economic tie Google has implemented in Korea and other jurisdictions, as explained above.

In light of the above, we lay out below the principles that we believe ought to be included in a settlement aiming to address the three pillars described above. **Attachment A** then provides a proposed draft injunction implementing these principles. In addition to the specific relief set out in **Attachment A**, the State Plaintiffs should also consider implementing compliance and monitoring provisions in any settlement order.

A. **Principle One:** Prohibit Google From Leveraging Its Control over Android OS to Self-Preference Play and GPB.

A developer should be able to choose to use Google Play and GPB based on the merits of those products and not be coerced by Google's monopoly power over Android ecosystem participants. Prohibiting Google from leveraging its control over Android OS to self-preference Google Play and GPB—such as by tying Google Play and GPB to any other of its other products or services—will prevent Google from using its dominance over Android, its GMS apps, or any of its other products or services to secure preferential treatment for Google Play, and will permit new entrants to compete freely and fairly in the market.

B. **Principle Two:** Prohibit Google From Discriminating Against Any App, App Developer, Competing App Store or Alternative Payment Solution.

Similar to Principle One above, Google should be prevented from using its power over the Android ecosystem to unfairly discriminate against (i) developers who operate competing app stores or alternative payment solutions; and (ii) developers who distribute their apps directly or through competing app stores, or that implement alternative payment solutions in their own apps. Such discriminatory treatment would foreclose fair and open competition.

Any settlement must prohibit Google from unfairly disadvantaging any third-party app store, or app downloaded through a non-Google Play source, through technical, financial or contractual means. Importantly, given the current dominance of Google Play as compared to other stores, this non-discrimination principle should extend to direct downloading, and not only to distribution through alternative stores. Indeed, the most immediate and effective competitive threat to Google Play may come not from other stores, but from major developers seeking to offer their apps for direct download—a distribution channel often used by major developers (*e.g.*, Activision, Microsoft, Adobe, and Google itself) on Windows and Mac systems. Thus, Google must not be allowed to indiscriminately impose additional downloading frictions such as warning screens for alternative app distribution channels, including direct downloading. Such warnings provide Google Play and GPB with an unfair advantage over competing distribution channels and actively dissuade users from directly downloading apps and app stores, even from sources the user trusts and that Google often recognizes as trustworthy.

⁷ *Epic Games, Inc. v. Apple, Inc.*, 559 F. Supp. 3d 898, 1056-58 (N.D. Cal. 2021), *aff'd in part and rev'd in part on other grounds*, 67 F.4th 946 (9th Cir. 2023).

This prohibition need not undermine the security of the Android ecosystem; it simply means that Google should be able to impose warning screens or other frictions on alternative app distribution channels only when it has a well-founded, good faith basis to believe they are necessary to prevent malware or malicious actors from causing harm to users. For example, Google could institute a “whitelisting” or “notarization” process that removes all downloading frictions for apps that have been vetted and pre-approved by Google and/or other trusted third parties that specialize in reviewing and vetting the safety of apps. Such procedure could be similar to that followed by Apple on macOS, where developers can upload their apps to Apple for vetting; Apple scans the app and issues developers a “notarization token” or “notarization ticket”, which is digitally “stapled” to the app; the developer may then distribute the app through any distribution channel, and MacOS distinguishes between notarized and un-notarized apps, regardless of their source, warning users against installation of the latter but not the former.⁸ This vetting process can be undertaken by Google itself or by trusted third parties and must be made generally available to all developers seeking to distribute Android apps. This process would provide a viable pathway for developers to seamlessly distribute their apps on Android outside of Google Play, enabling competition in app distribution to flourish, while allowing Google to maintain its security warnings against installation of apps that did not undergo the security vetting procedure prior to distribution.

Finally, under this principle, the injunction should also prohibit Google from using distribution channel or choice of payment solution to withhold access to, or charge in a discriminatory manner for access to, Google’s APIs, SDKs, software features or other tools needed to develop Android apps.

C. **Principle Three:** Prohibit Google From Entering Into Exclusivity Agreements or Other “Agreements Referencing Rivals” with Carriers, OEMs or Developers.

Given the importance of pre-installation and securing exclusive content in making an app store competitive, Google should be prohibited from entering into exclusivity agreements or similar contracts that reference competing app stores and payment solution providers and require carriers, OEMs or developers to deal with such rivals on no more favorable terms than with Google. This principle would prevent Google from entering into contracts that prohibit OEMs from pre-installing competing app stores, or require OEMs to place Google Play on mobile devices in at least as prominent a location as competing app stores. It would also prevent Google from securing exclusivity or sim-ship requirements for Android apps from developers.

D. **Principle Four:** Prohibit Google From Imposing Any New Fees that Increase the Cost of Distributing Apps or App Stores on Android

In order to remedy the anticompetitive effects of its conduct, Google should be prohibited for at least a period of time from imposing on developers or users new fees for access to any Android technology or functionality necessary to develop and distribute apps on Android. In addition, Google must be prohibited from imposing financial penalties or costs that deter developers from integrating alternative in-app payment solutions alongside or instead of GPB. Google must also be prohibited from imposing a financial penalty or cost to access the Android OS on apps and app stores that use alternative in-app payment solutions.

Finally, any settlement must also include broad anticircumvention language that prohibits Google from taking steps that violate the settlement's purpose even if not expressly set out in its terms, including imposing disincentives and providing incentives that prevent entry and meaningful competition in the Android app distribution and in-app payment solutions markets.

* * *

I enclose herewith as **Attachment A** a draft injunction that aims to operationalize the above principles. The principles above are consistent with and would not preclude Google from competing on the merits of its product and service offerings, and earning a fair return. For example, under an injunction consistent with these principles, Google could compete with other app developers, distributors and payment processing solution providers by making quality improvements to Android, Google Play and GPB; promoting its Google Play and GPB service offerings; and competing on price. However, such competition must occur on a level playing field, or the platform will remain closed and Google will be able to maintain its monopoly rents. Epic believes that such competition can and must exist, and believes that the above principles set forth a roadmap for bringing truly free and fair competition to the platform.

Very truly yours,



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Attachment A: Proposed Remedies– Specific Relief

The following draft injunctive language is organized with reference to the three pillars Epic believes any settlement must address in order to accomplish the goals of the Google MDL: Part I below includes remedies necessary to open the Android app distribution market, Part II includes remedies necessary to open the Android in-app payment solutions market and Part III includes remedies that would prevent Google from circumventing the terms and purpose of Parts I and II. All three Parts are essential to addressing Google’s anticompetitive behavior, and it is critical that all three Parts be considered and implemented together.

I. Remedies to Open the Android App Distribution Market

Google is enjoined from enforcing contractual provisions, guidelines or policies, or imposing technical restrictions, usage frictions or financial penalties that (i) restrict, prohibit, impede, disincentivize or deter the distribution of Android apps¹ through an Android app distribution channel other than Google Play (an “Alternative Android App Distribution Channel”); (ii) have the effect of impeding or deterring competition among Android app distributors (including competition between third-party Android app distributors and Google Play); and/or (iii) otherwise discriminate against or disadvantage Android app distribution through any Alternative Android App Distribution Channel.

To effectuate the above injunctive relief, the Court orders the following specific remedies addressing Google’s conduct with respect to original equipment manufacturers (“OEMs”), mobile network carriers (“Carriers”), developers of Android apps (“Developers”), users of Android mobile devices (“Consumers”) and developers or would-be developers of any Alternative Android App Distribution Channel (“Competing Distributors”), as well as with respect to its own Android platform.

¹ Distribution includes both supply of apps by Developers and acquisition of apps by Consumers unless otherwise specified.

1 A. Remedies Concerning OEMs and Carriers

2 With respect to OEMs and Carriers, Google is enjoined from:

- 3 1. Prohibiting or disincentivizing the preinstallation of any Android app based on its
4 availability or non-availability on Google Play;
- 5 2. Requiring or incentivizing Google Play to be (i) the exclusive app store preinstalled
6 on Android mobile devices; (ii) the exclusive app store placed on the default home
7 screen of Android mobile devices; (iii) the most prominently or preferentially
8 placed app store on Android mobile devices; and/or (iv) equal to or on par with the
9 placement of any other app store on Android mobile devices, including, but not
10 limited to, enforcing the priority placement requirements for Google's apps in its
11 Mobile Application Distribution Agreements ("MADAs") and enforcing the
12 exclusive preloading requirements of the Premier Tier Terms of its RSA 3.0;
- 13 3. Conditioning or impeding access to, restricting the use of, or conditioning the terms
14 of access to any of Google's products or services, including Android or any of its
15 proprietary apps or APIs, on the placement of Google Play on Android mobile
16 devices, including, but not limited to, enforcing the priority placement requirement
17 for Google Play in its MADAs as a condition of obtaining access to Google Mobile
18 Services ("GMS") core Google apps and APIs; and/or
- 19 4. Prohibiting or disincentivizing the preinstallation or promotion of any Alternative
20 Android App Distribution Channel.

21 B. Remedies Concerning Developers

22 With respect to Developers, Google is enjoined from:

- 23 1. Requiring or incentivizing the distribution of any Android app exclusively on
24 Google Play;
- 25 2. Requiring or incentivizing the distribution of any Android app on Google Play
26 before, or at the same time as, the app's release on an Alternative Android App
27 Distribution Channel, including, but not limited to, enforcing the app release parity
28 requirement in certain of its Project Hug agreements;
3. Prohibiting or disincentivizing the distribution of any Android app that has different
 or exclusive app content and/or features when distributed through an Alternative
 Android App Distribution Channel, as compared to when distributed through
 Google Play, including, but not limited to, enforcing the in-app content release
 parity requirement in certain of its Project Hug agreements;
4. Prohibiting or disincentivizing the distribution of any Android app that has different
 prices for the app, its content and/or any app features when distributed through an
 Alternative Android App Distribution Channel, as compared to when distributed
 through Google Play, including, but not limited to, enforcing the price parity
 requirement in certain of its Project Hug agreements;
5. Prohibiting the withdrawal of any Android app from Google Play without Google's
 consent, including, but not limited to, enforcing the non-removal requirement in
 certain of its Project Hug agreements;

6. Conditioning or impeding access to, restricting the use of, or conditioning the terms of access to any of Google's products or services (other than its Android app distribution services) on the basis of a Developer's actual or intended use of any Alternative Android App Distribution Channel. For the avoidance of doubt, prohibiting or disincentivizing the inclusion of a link to download or install any Android app through any Alternative Android App Distribution Channel in an advertisement for such an app would be deemed a violation of this Clause 6, including, but not limited to, enforcing the prohibition against linking to Alternative Android App Distribution Channels in Google Ads as part of its App Campaigns program; and/or
7. Prohibiting or disincentivizing the distribution or promotion of a Developer's app through any Alternative Android App Distribution Channel, including, but not limited to, enforcing its promotion parity requirement in certain of its Project Hug agreements that requires Developers to promote apps listed on Google Play in the same or equivalent manner as equivalent apps listed on an Alternative Android App Distribution Channel.

To remedy Google's past misconduct, its unlawfully maintained monopoly power and the anticompetitive effects it has imposed, the Court further orders that from the date of this Order and **for a period of five (5) years**, Google is enjoined from enforcing contractual provisions, guidelines or policies, or imposing technical restrictions, that restrict, prohibit, impede, disincentivize or deter distribution of any Alternative Android App Distribution Channel through Google Play, including, but not limited to, enforcing current Section 4.5 of its Developer Distribution Agreements ("DDAs") against any developer.

C. Remedies Concerning Consumers

With respect to Consumers, Google is enjoined from:

1. Prohibiting or disincentivizing, through any technical, contractual, financial, or other means, the downloading, installation and/or updating of any Android app through any Alternative Android App Distribution Channel, including, but not limited to, requiring users to go through the "Unknown Sources Flow" on Alternative Android App Distribution Channels when users download third-party apps or app stores that have been vetted by generally available review processes; and/or
2. Prohibiting or disincentivizing, through any technical, contractual, financial, or other means, the execution or use of any Android app that was downloaded, installed and/or updated through any Alternative Android App Distribution Channel.

1 D. Remedies Concerning Competing Distributors

2 With respect to Competing Distributors, Google is enjoined from:

- 3 1. Requiring or incentivizing, including through the provision of any pecuniary or in-kind benefits, or through the imposition of any financial penalty or economic loss, any Competing Distributor to scale back, slow down or abandon its distribution of Android apps or its entry into the distribution of Android apps, including, but not limited to, using its monopoly profits to incentivize Developers and OEMs not to invest in Alternative Android App Distribution Channels through the revenue share terms of its Project Hug agreements and RSA 3.0. For the avoidance of doubt, any benefit offered to a Developer to distribute any Android app through Google Play in lieu of, or in parallel with, self-distribution of the same Android app, is prohibited by this Clause 1;
- 4 2. Denying or impeding any Alternative Android App Distribution Channel from having equivalent access to Android functionality that Google Play has, including, for example, the same functionality as Google Play for facilitating the downloading, installation and/or updating of apps, including, but not limited to, by requiring users to go through the “Unknown Sources Flow” on Alternative Android App Distribution Channels when users download third-party apps or app stores that have been vetted by generally available review processes; and/or
- 5 3. Prohibiting or disincentivizing the preinstallation, downloading, distribution, or promotion of any Alternative Android App Distribution Channel, including, but not limited to, using the “sim-ship” parity requirements in its Project Hug Agreements to restrict Competing Distributors’ opportunities to differentiate their Alternative Android App Distribution Channels by offering exclusive content or early access to content.

6 E. Remedies Concerning the Android Platform

7 With respect to the Android platform, Google is enjoined from:

- 8 1. Denying or impeding any Alternative Android App Distribution Channel, or any Android app that was downloaded through any Alternative Android App Distribution Channel, from having equivalent access to Android functionality and/or features that any Android app downloaded through Google Play has access to, including, for example, the same functionality as Google Play for facilitating the downloading, installation and/or updating of apps, including, but not limited to, by enforcing the prohibition against OEMs preloading apps that contain INSTALL-PACKAGES permissions in the Premier Tier Terms of its RSA 3.0; and/or
- 9 2. Denying or impeding the downloading, installation and/or updating of any Android app from or through any Alternative Android App Distribution Channel, including by imposing “warning” screens or other obstructions or deterrents on any Android app distributed through any Alternative Android App Distribution Channel that are not present for apps distributed through Google Play and are not based on a risk assessment of the app itself based on factors other than whether it is sourced from Google Play or an Alternative Android App Distribution Channel, including, but not limited to, requiring users to go through the “Unknown Sources Flow” on Alternative Android App Distribution Channels when users download third-party apps or app stores that have been vetted by generally available review processes.

* * *

Notwithstanding the preceding prohibitions, nothing in this Part I shall prohibit Google from engaging in bona fide competition on the merits with respect to the distribution of apps on Android, such as:

1. Making quality improvements to Google Play to differentiate it from Alternative Android App Distribution Channels;
2. Communicating to OEMs, Carriers, Developers or Consumers regarding any purported quality or price advantages of Google Play over Alternative Android App Distribution Channels, or otherwise publicly promoting Google Play; and/or
3. Competing on price with respect to the distribution of apps on Android, such as through loyalty programs or promotional discounts.

For the avoidance of doubt, nothing herein shall prohibit Google from preventing or warning consumers against the installation of an Android app or app store that has not been submitted to a generally available² vetting (through scanning or review processes) offered by Google itself, by an Alternative Android App Distribution Channel preinstalled on the Android device, or by a third party Google designates for the purpose of reviewing the safety and security of Android apps.

II. Remedies to Open the Android In-App Payment Solutions Market

Google is enjoined from (i) restricting, prohibiting, impeding, disincentivizing or deterring the use of Android in-app payment solutions other than Google Play Billing (“GPB”) (“Alternative In-App Payment Solutions”), and/or (ii) otherwise discriminating against Alternative In-App Payment Solutions, Developers that use Alternative In-App Payment Solutions or any Android app or app store that uses Alternative In-App Payment Solutions.

To effectuate the above injunctive relief, the Court orders the following specific remedies as it relates to Google’s conduct with respect to Developers, Users and to its own Android platform:

² For the avoidance of doubt, “Generally available” means Google may not deny or limit, or attempt to deny or limit, any Developer’s access to a scanning or review process offered by Google, an Alternative Android App Distribution Channel, or a third party Google designates for the purpose of reviewing the safety and security of Android apps, unless Google receives express permission from the Court or the Compliance Monitor (if applicable) to do so based on a good-faith belief that the developer poses a security threat.

A. Remedies Concerning Developers

With respect to Developers, Google is enjoined from:

1. Requiring the implementation of GPB in any Android app, including, but not limited to, enforcing Sections 1 and/or 2 of its Google Play Payments Policy.
2. Rejecting for distribution, or otherwise disadvantaging, any Android app distributed through Google Play on the basis of the app's actual or intended integration of one or more Alternative In-App Payment Solution, whether alongside GPB or to the exclusion of GPB;
3. Retaliating or threatening to retaliate against any Developer on the basis of such Developer's app's actual or intended integration of one or more Alternative In-App Payment Solutions, whether alongside GPB or to the exclusion of GPB;
4. Enforcing contractual provisions, guidelines or policies, or imposing technical restrictions or financial penalties, that (i) restrict, prohibit, impede, disincentivize or deter Developers from integrating any Alternative In-App Payment Solution, whether alongside GPB or to the exclusion of GPB, including, but not limited to, charging any fee for in-app purchases of digital content using an Alternative In-App Payment Solution; or (ii) restrict, prohibit, impede, disincentivize or deter Developers from directing or informing users of the existence of payment methods outside of any Android app, including, but not limited to, enforcing the anti-steering clause in Section 4 of its Google Play Payments Policy; and/or
5. Giving preferential treatment in search to any Android app that uses GPB as an Android in-app payment solution, whether alongside any Alternative In-App Payment Solutions or to the exclusion of any Alternative In-App Payment Solutions.

B. Remedies Concerning Users

With respect to Users, Google is enjoined from:

1. Enforcing contractual provisions, guidelines or policies, or imposing technical restrictions or financial penalties, that restrict, prohibit, impede, disincentivize or deter Users from selecting any Alternative In-App Payment Solution for processing in-app purchases of digital content in any Android app.

C. Remedies Concerning the Android Platform

With respect to the Android platform, Google is enjoined from:

1. Denying or impeding any Android app or app store that uses any Alternative In-App Payment Solution, whether alongside GPB or to the exclusion of GPB, from having equivalent access to the same Android functionality and/or features as any Android app that uses only GPB for in-app purchases of digital content; and/or
2. Imposing a financial penalty, technical limitation or otherwise restricting, prohibiting or impeding access to the Android platform for any Android app (including any Android app store) on the basis that such app or app store uses any Alternative In-App Payment Solution, whether alongside GPB or to the exclusion of GPB.

1 Notwithstanding the preceding prohibitions, nothing in this Section II shall prohibit Google
2 from engaging in bona fide competition on the merits with respect to in-app payment solutions for
3 Android apps, such as:

- 4 1. Making quality improvements to GPB to differentiate it from Alternative In-App
5 Payment Solutions;
- 6 2. Charging different fees for transactions processed through GPB on different apps;
7 and/or
- 8 3. Communicating to OEMs, Carriers, Developers or Consumers regarding any
9 purported quality or price advantages of processing in-app purchases of digital
10 content through GPB over Alternative In-App Payment Solutions, or otherwise
11 publicly promoting GPB, advertising GPB, or incentivizing OEMs, Carriers or
12 Developers to communicate the purported benefits to Consumers of GPB through
13 Android apps or Alternative Android App Distribution Channels.

14 Further, nothing in this Section II shall prohibit Google from seeking a modification of the
15 Court's Order regarding the Android In-App Payment Solutions Market on the basis of changed
16 circumstances (*i.e.*, Google's loss of monopoly power in the Android App Distribution Market).

17 **III. Remedies to Prevent Circumvention**

18 For a period of ten (10) years, Google is enjoined from circumventing this Order by taking
19 steps that violate the purpose, even if not expressly the terms, of this Order, including by imposing
20 disincentives or providing incentives that are designed to, or have the effect of, making competitive
21 entry or expansion in the Android App Distribution Market and/or the Android In-App Payment
22 Solutions Market more expensive, slower, harder or otherwise impracticable for Competing
23 Distributors and/or actual or potential providers of Android in-app payment solutions. For the
24 avoidance of doubt, the remedies in this Part III prohibit conduct including, but not limited to, the
25 imposition by Google of fees tied to or calculated on the basis of a Developer's revenues or profits
26 derived from the sales of content, goods, services or subscriptions, whether such sales occur in-
27 app or outside the Developer's Android app, where the developer uses an Alternative In-App
28 Payment Solution to service such sales.

Nothing in this Part III shall prohibit Google from competing on the merits, such as by
making quality improvements to its Google Play and GPB services.